PARTNER® ACS/IP PARTNER Version

Why is Avaya announcing EoS on PARTNER® ACS?

IP Office Release 6.0 introduced the IP PARTNER Version, which was designed to create the "PARTNER experience" for both Avaya Partners and customers alike. IP PARTNER Version emulates key features of PARTNER ACS, including Key and Lamp, audible and visual feedback, conference, hold and transfer functions. Additionally, with the ETR6 Card, PARTNER ETR telephones can be used with the system.

What's NEW?

Auto Attendant / Voice Mail

Multiple Automated Attendands and Sub-Menus

Up to 9 Automated Attendants and/or sub-menus are now available.

Different Selector Codes based on Time Profile

Each Auto Attendant can have its own unique Morning / Afternoon / Evening / Out of Hours greeting; and different Selector Codes based on time profiles.

Direct Inward Dial (DID) to Auto Attendant Support

DID calls can now be routed to and answered by their own Auto Attendant.

Emergency Greeting

Each Auto Attendant supports an Emergency Greeting that can be remotely recorded, activated or deactivated via Manager or Telephone (e.g. weather closures; emergencies; etc)

Phantom Mailboxes

All 48 mailboxes in the Embedded Messaging cna be used without the need for physical station ports.

Voice Mail User Enhancements

- Bypass Greeting - you can press "1" to bypass the mailbox greeting.
- End of Recording Options - pressing "#" at the end of your message will provide the caller a confirmation that "Your message has been sent. Goodbye."
- Change Message Status to New - allows you to change the status of an Old or Saved message back to New, putting it in the New Message queue and reactivating the Message Waiting light. This is available from both Visual Voice as well as via TUI command (*06).

Badger Communications
408 6th Avenue W
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PARTNER® ACS/IP PARTNER Version

System Features

Increased support for ATM-4 Cards

The system now supports up to 16 Analog CO telephone lines.

Unique Line Ringing with Override

Allows user to differentiate, by sound, which line is ringing via a unique ring pattern. Up to 8 ring patterns are available.

One-Touch Call Transfer

Users can now press their pre-programmed auto intercom button to transfer a call to an extension.

Transfer Return To Programmable Extension

Allows an unanswered transferred call to be re-routed to an alternate extension.

TUI Menu Optimization

The 1408/1416 menu has been optimized for easier programming and use.

Wake-up Service

Allows extension 10 to set a wake-up reminder call for a user on the system. If call is not answered by the user, the system re-tries a 2nd time 5 minutes later. Ideal for the hospitality industry.

Service and Support Features

SD Card Shut Down/ Start Up via TUI

Allows the administrator to shut down or start up either the Primary or the Secondary SD card slot, via TUI commands, without distrupting the entire system.

Display System IP Address

A new Feature Code (F591) displays the IP address assigned to the system.

Display SD Card Feature Key

A new Feature Code (F592) displays the SD Card Feature Key ID number.

Remote Access to the built-in modem (x76)

You can remotely access the built-in modem of the PARTNER Version by a DID number and by Auto Attendant selector.

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PARTNER® ACS/IP PARTNER Version

Can IP PARTNER® Version be upgraded to full IP Office functionality?

Yes. A parameter in Manager will change modes. Note that the ETR cards and ETR phones are only supported in IP PARTNER® Version mode.

What are some of the key reliability features of IP Office?

Avaya IP Office is a highly reliable communications platform, with a number of related features including:

Solid-state components with no moving parts - there are no hard drives or fans that can fail.

There are no cooling fans required in the IP Office chassis, which significantly reduces any potential points of failure. On other systems, when fans fail, components overheat and may become so damaged that they have to be replaced.

The resiliency capability of IP Office Release 5.0 with Multi-Site Networking adds tremendous reliability as well. In the unlikely event that one IP Office in the network fails, IP phones from that system will automatically re-register to another IP Office system in the network. No additional hardware is required, making this capability extremely valuable and cost-effective to customers requiring business continuity. IP Office R6.0 further enhanced resiliency introducing distributed and back-up messaging within a Multi-Site Network.

Please see the additional PARTNER® ACS/IP PARTNER Version resources in this kit. If you have any questions *please* feel free to call us here at Badger at 715.672.4200 or email info@badgercommunications.com

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PARTNER® ACS/IP PARTNER Version

FAQ

How does IP Office IP PARTNER® Version work?

The new "PARTNER Version" SD card enables PARTNER® version on the new IP Office 500v2.

How close to PARTNER® emulation do I get with this solution?

All the major features will be emulated i.e. Key and Lamp, audible and visual feedback, conference, hold and transfer are similar. The only difference is Voice Messaging – that is supplied on the Essential Edition and uses the Essential Edition TUI.

Do I get anything new?

SIP trunks, full PRI/T1, 64 party conferencing, account code entry, automatic daylight savings, and more.

Which cards are supported on the IP Office 500v2 in IP PARTNER® Version mode?

ETR6, Combination Card ATM4, DS8, Phone 8 and maximum of 1 expansion unit (DS16 or Phone 16).

What trunk interfaces does the new ETR card support?

The ETR Card can be fitted with the ATM4 daughter card (with power fail) or universal PRI daughter card (all channels available – maximum 1 T1/PRI per system).

Which voice messaging platform can I use in IP PARTNER® Version mode?

Essential Edition only – It utilizes the Essential Edition TUI and is different from PARTNER® voicemail TUI.

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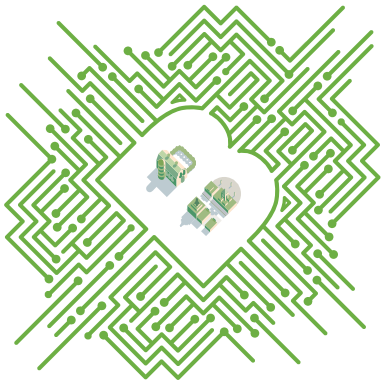

PARTNER® ACS/IP PARTNER Version

What is the maximum capacity?

Total capacity is 48 stations and 56 trunks:
o 48 stations (18 ETR phones maximum)
o 12 analog Trunks (ATM4 on ETR Card or Combination Card ATM4)
o 24 T1/PRI (Daughter card on ETR)
o 20 SIP trunks (requires the Combination Card for the VCM channels)

Can I add more messaging ports to the IP PARTNER® Version?

Yes. 2 voice ports are included for simultaneous access, and you can add ports in increments of 2 up to a maximum of 6 voice ports.

Is the voice messaging comparable to PARTNER Messaging?

No. The Essential Edition – PARTNER Version voice messaging is comparable to PVM 4 and 12 – it has a single auto attendant (similar to PVM) and a maximum of 15 hours storage (more than PVM)

Which phones are supported by IP PARTNER® Version?

PARTNER® 6D / 18D / 34D ETR phones and IP Office 1400 series and any analog device (supported on the Combination Card, Phone 8/16 card or the Aux port of the ETR phones).

How many ETR (Enhanced Tip and Ring) phones are supported?

A maximum of 18 – (6 each on the ETR Module), with 3 ETR modules maximum per IP Office 500v2.

Is analog supported on the Aux port of the ETR phone?

Yes.

How is power fail supported?

In each ETR Module, when used with the ATM4 trunk daughter card, port 7 and 8 will failover to trunk port 12. Port 7 and 8 are not operational in normal power mode.

Which trunk interfaces are supported?

Analog, T1/PRI, and SIP trunks (SIP trunks require the Combination Card).

Can IP500v2 systems in IP PARTNER® Version be networked?

No.

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IP Office Essential Edition – PARTNER® Version

What Is It?
Why The Need?

Ron Rogers
SME Product Manager

PARTNER ACS Today

- PARTNER has been in the market for 20 years (since 1990)
  - Over 1.3 Million systems sold since inception
  - Over 500K systems still in operation today
- Minimal investment in PARTNER ACS for past 5 years:
  - ACS R8 launched April 2009 – minor release
  - ACS R7 launched in August 2004 –hardware and feature enhancements
- Losing competitiveness in market:
  - No digital or IP phone support
  - No SIP, PRI/T1, IP capability
  - Lack of migration path to IP Office
  - Limited remote service capability
  - Aging end points (2004)
- Limited to North America and CALA markets

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What BP's are asking for in a new system:

- **Customers are very cost-conscious**
  - Price differences of a few hundred $ can make or break sale
- **Need out of the box:**
  - PARTNER key system functionality - REQUIRED
  - ***NO*** dial 9
  - On-board messaging (NO servers)
- **Phones**
  - ETR phone support essential
  - Minimum of 16 ETR station ports
  - Must support the ETR AUX jack on all ports
  - Refresh sets to support 2-wire, more intelligent display
- **Trunking**
  - Analog trunks still going strong
  - T1/PRI important
  - SIP (trunking) emerging
  - Need to be competitive and future proof
- **IP500v2 Hardware**
  - Like look and feel
  - Provides commonality across platform
  - Must be wall mountable
- **TUI Programming Capability a must!**
- **Simple GUI Programming needed**
  - Keep similar to PARTNER PC Administration
  - IP Office Manager can be intimidating
  - RAC card too problematic for GUI administration
- **Licensing**
  - Minimal to no licensing
  - Must be simple
- **Reliability, Dependability, Quality**
  - Stable system with low maintenance

"Set it and forget it"

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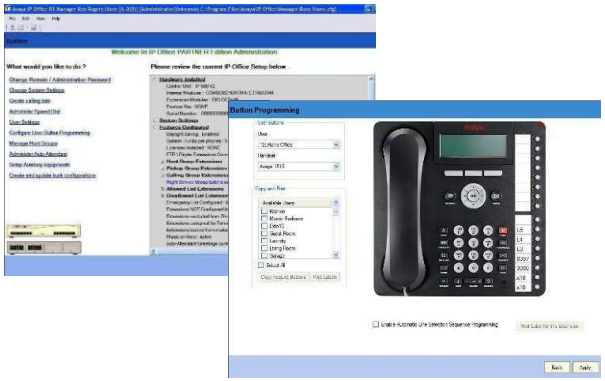
What is IP Office Essential Edition – PARTNER® Version?



48 PHONES:
1400 SERIES
ETR PHONES
(18 MAX)
ANALOG

56 TRUNKS:
T1/PRI
SIP (up to 20)
ANALOG (up to 12)

- Familiar key system operation
  - PARTNER ACS Desktop User Experience
- Program in less than 30 minutes
- Administration via:
  - PC GUI application (Simplified Manager)
  - Telephone User Interface (TUI)
- Set and Forget installation with Out-of-the-Box operation
  - Key system functionality
  - Line appearances
  - Voice Mail coverage on all sets

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This is Essential Edition - PARTNER® Version

PARTNER Version is the 'PARTNER ACS experience', overlaid on an IP 500v2 chasse.

IP Office 500 V2

NEW

COMBINATION CARD
(Max 2 per system)

6 DIGITAL PHONES
2 ANALOG PHONES
4 ANALOG TRUNKS
10 VCM CHANNELS

PARTNER ETR 6
(Max 3 per system)

6 ETR PHONES
2 PFT PORTS
(when ATM-4 daughter card is installed)

Other Supported Cards:
(Max 3 per system)

DS-8
Phone-2
Phone-8

Supported Daughter Cards:

PRI/T1 (1 per system)
ATM-4 (3 per system)

Supported Expansions:
(limit 1 per system)

DS-16
Phone-16

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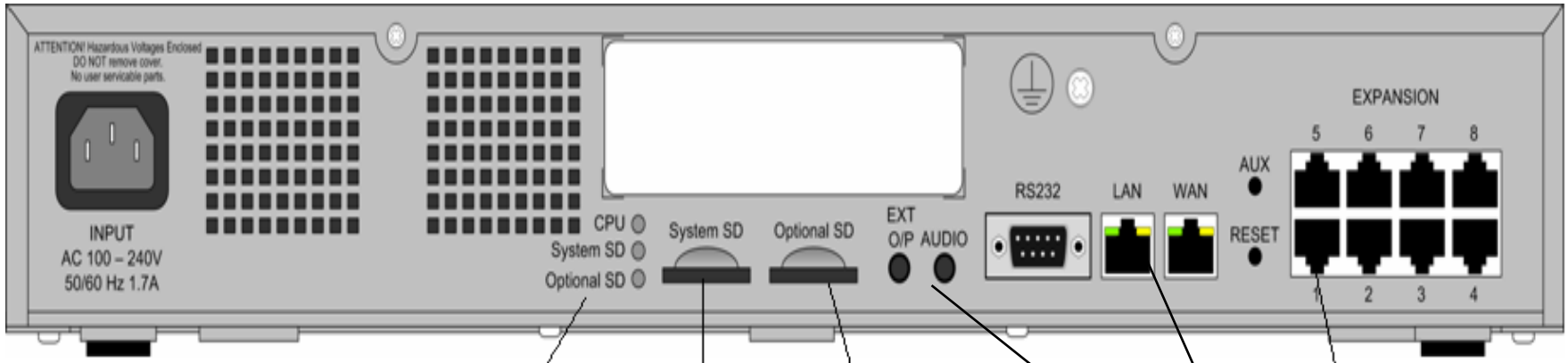
This is Essential Edition - PARTNER® Version

Rear View



LED status indicators for CPU, System SD and Optional SD card performance

System SD card provides operating software, licenses and backup / restore.

Optional SD card provides redundant backup / restore.

Dedicated ports for Contact Closure and Music on Hold source

LAN port for network connectivity

Only Expansion Port 1 is used in PARTNER mode

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This is Essential Edition - PARTNER® Version

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This is Essential Edition - PARTNER® Version

NEW 1408 Digital Telephone

NEW 1416 Digital Telephone
With Optional BM32 unit

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Out of the Box Operation

- System running in Key System mode with analog trunk support.
- Customers can place/receive calls without any further programming once the system is installed; 2-digit dial plan is pre-configured
- All ETR & Digital sets have:
  - 2 Dedicated Intercom Buttons
  - Pre-configured Line Appearance buttons for all analog lines on system
- 3 SIP channels
  - Expandable to 20 channels with licenses
- 8 PRI/TI channels (Requires PRI/T1 Card)
  - Expandable to 24 channels with licenses
- 3 Mobility licenses (expandable to 20 with licenses)
- 2-Port Embedded Messaging
  - All users have Voicemail activated automatically
  - Expandable to 6 ports with licesnes.

What does this mean to you?

1. Minimal Setup time
   - Operational in minutes
2. Minimal programming needed
   - Can work directly out of the box
   - Lines automatically assigned to sets
   - Voice Mail pre-activated on all sets
3. Minimal Training
   - Similar desktop user experience as PARTNER ACS

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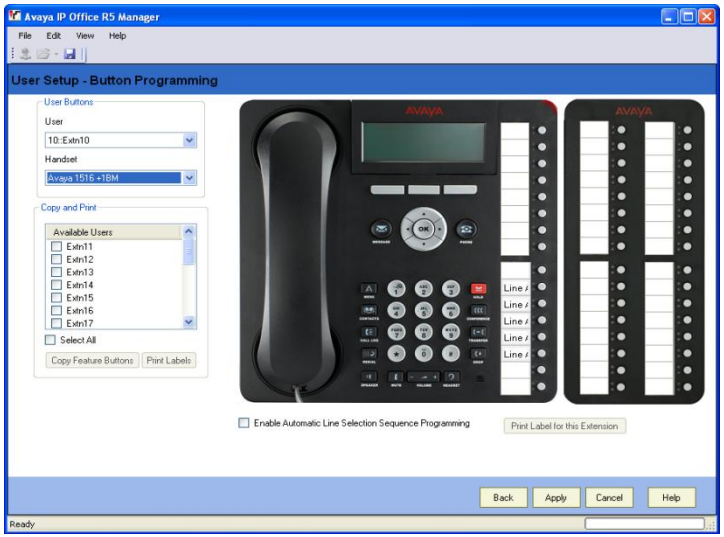
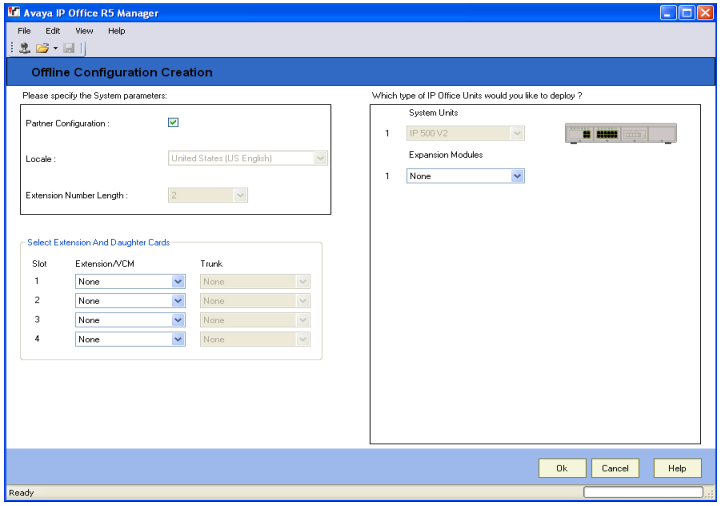
Essential Edition - PARTNER® Version

Programming options: GUI

- Simple GUI admin interface, blending PARTNER ACS PC Admin with IP Office Manager
  - Graphical interface to program feature buttons
  - Copy / Paste functionality for programming multiple buttons on same handset
  - Copy features buttons from 1 user to multiple users
  - Ability to print single / multiple handset labels
- Quick programming using 9 primary configuration links
- System programming in less than 30 minutes





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Essential Edition - PARTNER® Version

Programming options: TUI

- Alternative way to do Administration and Programming
- Similar to PARTNER ACS TUI programming, consisting of system administration, centralized programming, and individual programming
  - Same programming codes as PARTNER ACS
  - Stations 10 and 11 can do system administration and centralized programming on PARTNER 18D, PARTNER 34D, 1408, or 1416 phones
  - Individual programming can be done by any station on PARTNER 18D, PARTNER 34D, 1408, or 1416 phones

Note: Some advanced features, such as SIP and T1/PRI can be administered only with GUI programming

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Essential Edition - PARTNER® Version

Migration vs. New

10% to 15% Migrate

- PARTNER Experience
  - >Key System
  - >TUI
  - >Reliability
- Reuse ETR sets
- New 14xx Digital sets
- 3910/3920 Wireless
- Leverage IPO hardware

PARTNER Version

Competitive or Greenfield

85% to 90% New Sales

PARTNER Experience
- >Key System
- >TUI
- >Reliability

New 14xx Digital sets
PARTNER Telsets (optional)
3920 Wireless
Leverage IPO hardware

PARTNER Version

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PARTNER ACS R8 vs. PARTNER® Version

Why Sell PARTNER ACS R8	Why Sell PARTNER® Version
Smaller Sites (e.g.. <5 sets, stand alone 509)	CPE / Migration / New system sales
Requires more than 18 ETR telephones	Wants all new digital telephones
Requires certain PARTNER Messaging R7 functionality:	Requires certain messaging functionality:
•Record-A-Call	•Voice Mail to E-mail
•Outcalling Notification	• Visual Voice Messaging via 14xx Display
•Multiple Auto Attendants	Needs >5 party Conferencing
•Larger Mailbox Size	PRI / T1 or SIP Trunk capability
Needs more than (4) 34D telephones	Wants capability to grow to 48 extensions AND Voice Mail
Upgrade from older ACS – reuse all modules and phones.	Common hardware platform for future upgrade to IP Office

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Pricing Comparison (e.g. 10 user average construct)
ACS R8 to Essential Edition - *PARTNER Version*

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PARTNER ACS R8:		
Parts List	**Qty**	**Price**
ACS R8 Control Unit	1	$ 995
308EC Module	1	$ 567
5-Slot Carrier	1	$ 175
PVM-12 Voice Mail	1	$ 726
RAC Card	1	$ 250
PARTNER 18D sets	10	$2490
Total		**$5203**

IP Office – PARTNER Version:		
Parts List	**Qty**	**Price**
IP 500v2	1	$ 650
SD Card	1	$ 50
Wall Mount Kit	1	$ 39
Power Cord	1	$ 15
Combination Card	2	$1200
1416 Telephones	10	$3588
Total		**$4944**

✓ **5% SAVINGS**
✓ **INVESTMENT PROTECTION**

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ACS R8 vs. PARTNER Version

24 users and below (*Constructs Include IP 500v2 And Phones*)

Digital Phone Configuration		
Users		IP Office PARTNER Version
6	R8	$3465
	PV	**$3148** (10% Savings)
12	R8	$5701
	PV	**$5542** (3% Savings)
18	R8	$8535
	PV	**$8286** (3% Savings)
24	R8	$10029
	PV	**$10630** (6% Difference)
ACS R8: PVM12 <13 Sta; PMSG R7 >12 sta IP500v2 using Combination Cards, DS8 and1416		

ETR Phone Configuration		
Users		IP Office PARTNER Version
6	R8	$3465
	PV	**$3148** (10% Savings)
12	R8	$5701
	PV	**$5542** (3% Savings)
18	R8	$8535
	PV	**$7936** (7% Savings)
24	R8	$10029
	PV	**$9930*** (1% Savings)
ACS R8: PVM12 <13 Sta; PMSG R7 >18 sta IP500v2 using ETR6, ATM4, Combo Card and1416		

* Using1416 sets and digital ports for configs over 18 ETR sets

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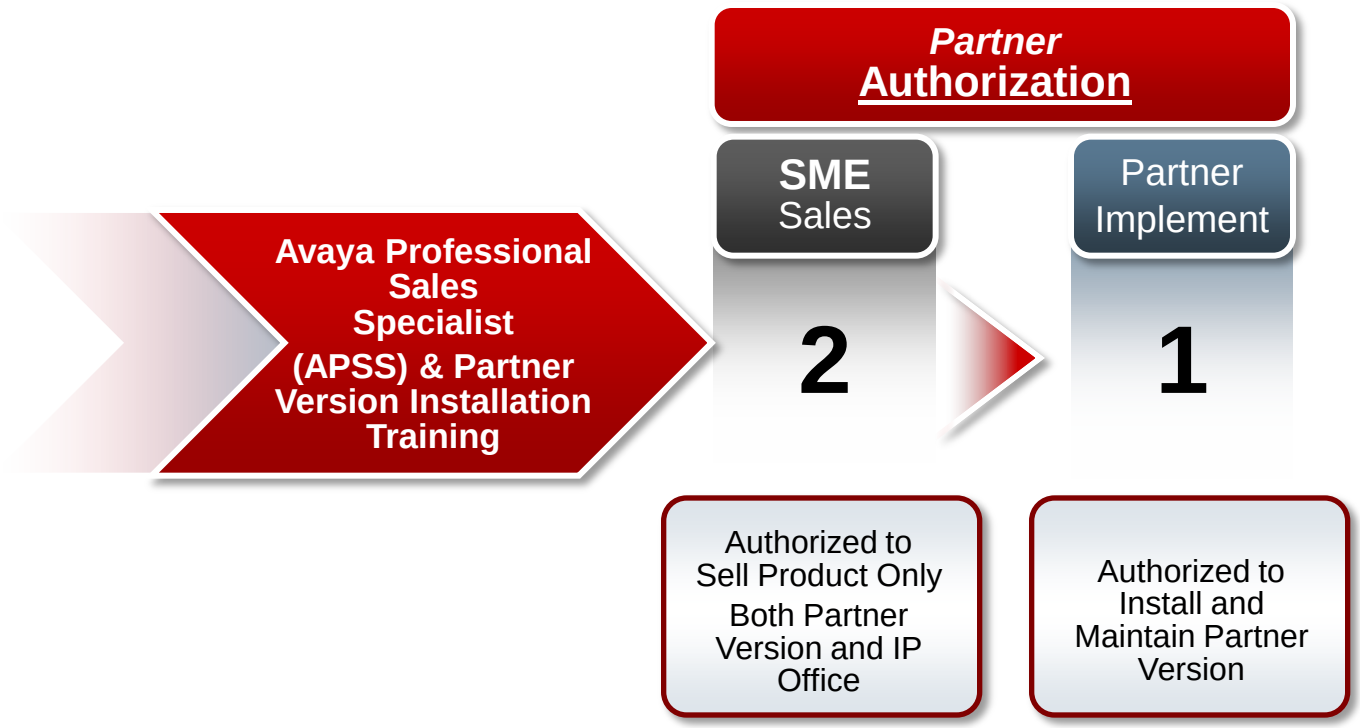
How Do I Get Ready?



- **Web-based training makes it easy to certify.**
- **By completing Sales training your authorized to sell both versions.**
- **Makes it easy to migrate to IP Office as your company grows.**

Note: Sales training – 3 Hours / Implement training 8 hours or less.

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Evangelizing The Benefits

- **PARTNER ACS is "evolving" into a next generation system**
  - Newer, common control unit
  - Integration of common IP Office components
    - ATM-4, PRI / T1
    - DS8, DS16
    - Phone 2, Phone 8, Phone 16
  - Built-in support for SIP trunks, Mobile Twinning
- **Greater variety of telephones**
  - PARTNER ETR sets
  - New 14xx digital telephones
  - 3920 / 3910 Wireless
  - Analog devices
- **Investment Protection**
  - Migrate all telephones
  - Common IP Office hardware eliminates need to replace all hardware

The "PARTNER Experience" continues

- Same key system look and feel as PARTNER has always provided
- The desktop experience remains PARTNER

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Questions and Discussion

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IP Office Essential Edition – PARTNER® Version

Simplified Communications for Very Small Businesses

Overview

Avaya IP Office *Essential Edition – PARTNER® Version* is the ideal solution for small enterprises that anticipate growth. Essential Edition – PARTNER Version incorporates the best from one of the world's most popular phone systems – Avaya PARTNER® Advanced Communications System – with the flexibility, sophistication and expandability of our award-winning IP Office.

Many small businesses want the ability to grow, and with Essential Edition – PARTNER Version, your communications are ready to do just that. Start with two extensions and expand to 48; begin with a single line and grow to 56. Increase capacities and features only as you need them. And with features like Caller ID, Dial-by-Name, Automated Attendant, Multi-Party Conferencing, Integrated Voicemail, and more, Essential Edition – PARTNER Version will be right there with you, wherever your enterprise takes you.

Capabilities

Unified Messaging – Retrieve voice messages from the keypad on any phone, through the display on an Avaya 1400 series phone, or via email (voice messages show up just like an email) from a single Inbox for fast and efficient access to information.

One Number Access – Let calls to your office ring simultaneously on your mobile or home phone so calls are never missed, even when out of the office.

Messaging, conferencing, and more – Automatically receive notification and listen to voice messages when out of the office. Quickly set up conference calls with up to 64 people to enable cost-effective collaboration.

Automated Attendant – Customize caller greetings so key clients receive a personal message and are routed directly to the most appropriate person or team.

Dial By Name – Callers can easily identify who they want to connect with by simply spelling that person's name on their phone keypad.

Choose your connection – Essential Edition – PARTNER Version supports analog lines, PRI/T1; and newer IP-base technologies such as SIP (Session Initiation Protocol) trunking, which can provide significant cost savings.

Benefits

- **Better customer service** – Through touch tone prompts, quickly route customers to the right department for fast, personalized customer experiences
- **Lower costs** – Select the connection technology that best suits your business, including Internet Protocol-based solutions such as SIP trunking that can save as much as 50% off monthly calling fees (results vary by area and service provider)
- **Investment protection** – invest in IP Office Essential Edition – PARTNER Version now and know that you'll have a communications solution that will grow with you – in capacities and capabilities – as your business takes off.

Specifications	
Format	• Secure Digital (SD) Card
System Requirements	• IP Office 500 system
User Requirements	• Supports 48 telephones (Analog, 1400 Series Digital, PARTNER® ETR, multi-line wireless)
Feature Detail	• 56 Trunk capacity (Analog, T1/PRI, SIP) • Key system operation • 64-party conferencing capacity • Maximum of 6 concurrent voice messaging calls • Approximately 15 hours of storage • Automated Attendant • Multiple language support • Message control: Save, Delete, Forward, Repeat, Rewind, Fast Forward, and Skip Message • All messages time & date stamped • Breakout to reception • Voicemail to email presentation • Visual Voicemail
Related Products	• IP Office Preferred Edition • IP Office Advanced Edition

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References to Avaya include the Nortel Enterprise business, which was acquired as of December 18, 2009.
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IP Office PARTNER Version

PARTNER Version User Guide

- Issue 1a - (20 January 2010)

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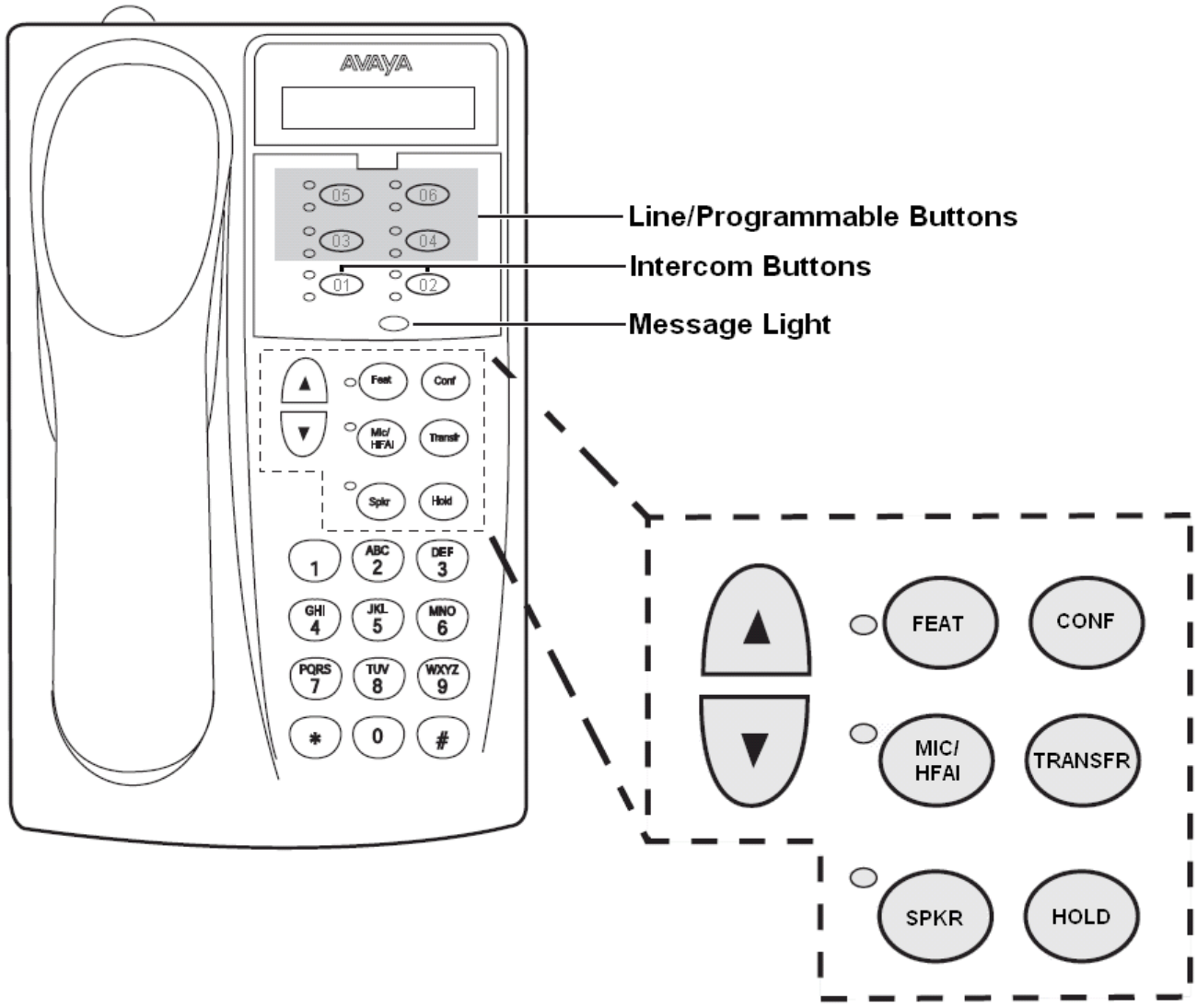
Chapter 1.
ETR Telephones

1. ETR Telephones

The IP Office PARTNER Version supports the ETR Series of Avaya phones. The models supported are the ETR 6D, ETR 18D and ETR 34D phones.

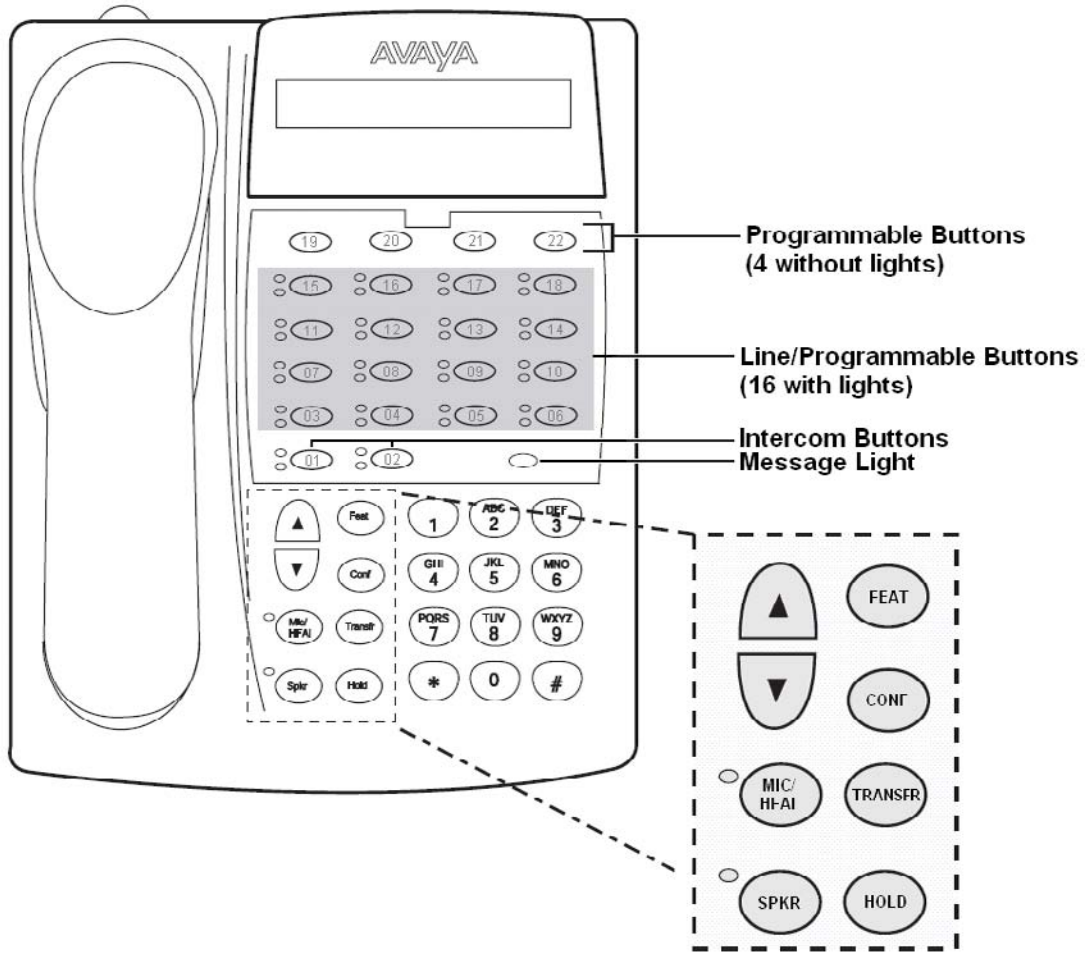
Feature	ETR 6	ETR 6D	ETR 18	ETR 18D	ETR 34D
Programmable buttons with lights	4	4	16	16	32
Programmable buttons without lights	0	0	4	4	4
Intercom Buttons with light	2	2	2	2	2
Display	No	Yes	No	Yes	Yes
Speakerphone	Yes	Yes	Yes	Yes	Yes

ETR 6/ETR 6D



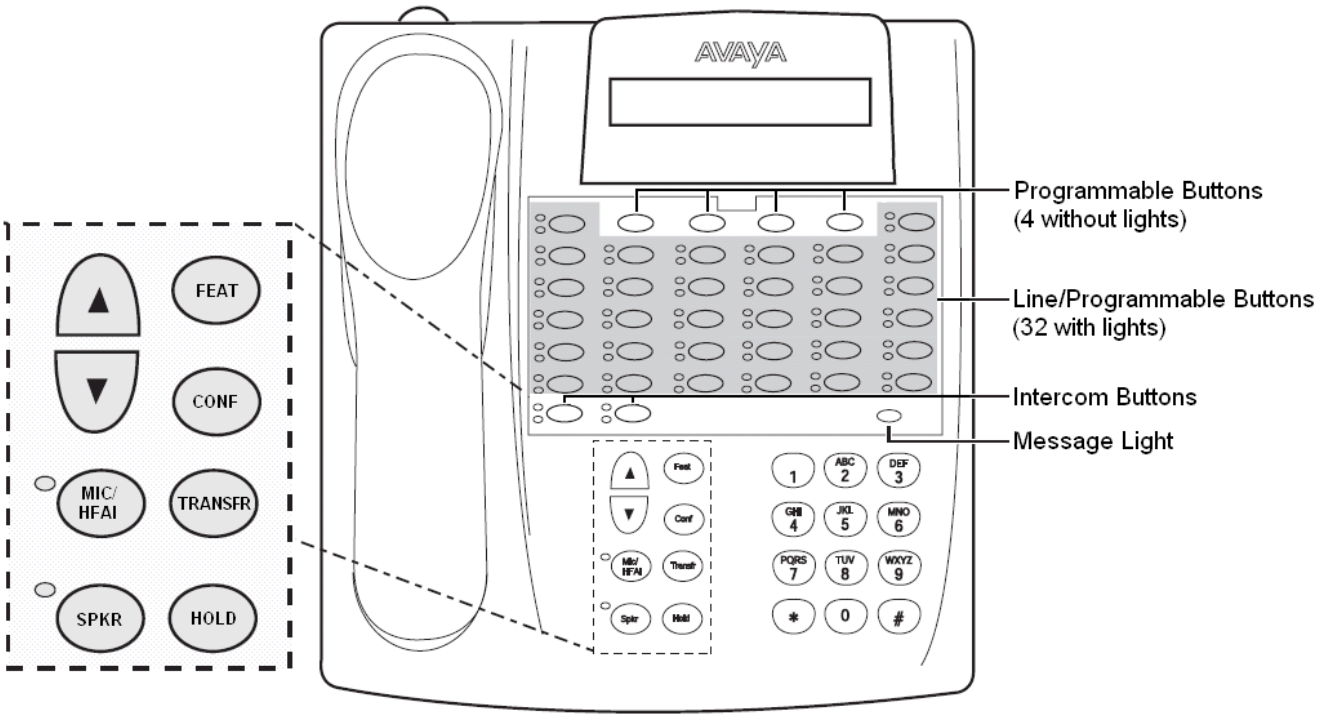
The ETR 6 does not include a display. The ETR 6D includes the display.

ETR 18/ETR 18D



The ETR 18 does not include a display. The ETR 18D includes the display.

ETR 34D



The number of ETR 34D phones supported is limited to a maximum of 4 (with a maximum of 2 per ETR6 base card).

1.1 Fixed Buttons

In addition to the line buttons, the telephones have some or all of the following fixed buttons, which are already imprinted:

- INTERCOM
  Press to make or answer a call to or from another extension. If you receive a call on a T1 line with Direct Inward Dialing (DID), and you cannot access that line from a line button, the call will appear on your Intercom button.
- FEATURE
  Press to change programmed settings or use system features.
- CONF
  Press to add other parties to your call.
- TRANSFER
  Press to pass a call to another extension.
- HOLD
  Press to put a call on hold.
- SPKR
  Press to turn on and off the speaker and microphone (if available), so you can dial and have a conversation without lifting the handset. The light next to this button shows when the speaker is turned on.
- MIC/HFAI
  Press to turn the microphone on and off. The light next to this button shows when the microphone is turned on. Leave on to use Hands-Free Answer on Intercom (HFAI) feature.
- Volume Control Buttons
  Press ▼ to decrease or ▲ to increase the volume as follows:
  - To adjust ringer volume, press while the telephone is idle and the handset is in the cradle.
  - To adjust speaker volume, press while listening to a call through the speaker.
  - To adjust handset volume, press while listening through the handset.

1.2 Ringing Patterns

ETR phones use the following ring patterns:

Call Type	Ring Pattern	
Outside Call	ring... ring... ring	
Intercom Call	ring BEEP... ring BEEP... ring BEEP	• If you have a system display telephone, the caller's extension number (and name if programmed) appears on the display.
Recalling Call	ring BEEP BEEP... ring BEEP BEEP... ring BEEP BEEP.	• A transferred call, or an unanswered transferred or parked call that is ringing back at your extension

1.3 Dial Tones

There are two different dial tones when you call with a system telephone:

- Outside dial tone is generated by your local telephone company to indicate that you are connected with an outside line.
- Intercom dial tone is generated by the system to indicate that you are connected with an inside line. You hear this dial tone when you are making an inside or intercom call.

1.4 Light Patterns

Each line button a green light and a red light. The meaning of these lights varies depending on whether the button is used to access an outside line or pool, is programmed with a system feature, or is programmed for Auto Dialing an extension number (Intercom Auto Dial button). Auto Dial buttons for fax extensions show additional information.

The meanings of the various light patterns for each possible button assignment are:

Light Pattern	Line Button	Programmable Button	Intercom / Auto Dial - Intercom Button
On	Green - You are using the line. Red - Line in use by another extension.	Green - Feature is on.	Red - Extension is busy.
Off	Line is idle	Feature is off.	Extension is idle.
Flash (long on, long off)	Green Flash - A call is ringing at your extension. Red Flash - A call is ringing on the line but not at your extension.	A user is entering a a four-digit code to lock or unlock their extension.	–
Alternating Red/Green	Alternating green and red flash appears at both extensions in a joined call.	–	–
Wink (long on, short off)	Green Wink - The call is on hold or parked at your extension. Red Wink - Call is on hold or parked at another extension. Anyone who has the line can retrieve the call.	–	–
Green Flutter (short on, short off)	–	Caller ID Inspect is on.	

1.5 Adjusting the Telephone Display

The phone must be idle and the handset must be in its cradle when you adjust the display contrast.

To adjust the display brightness

1. With the extension idle, press *.
2. Use the ▲ up arrow and ▼ down arrow keys to change the display brightness.

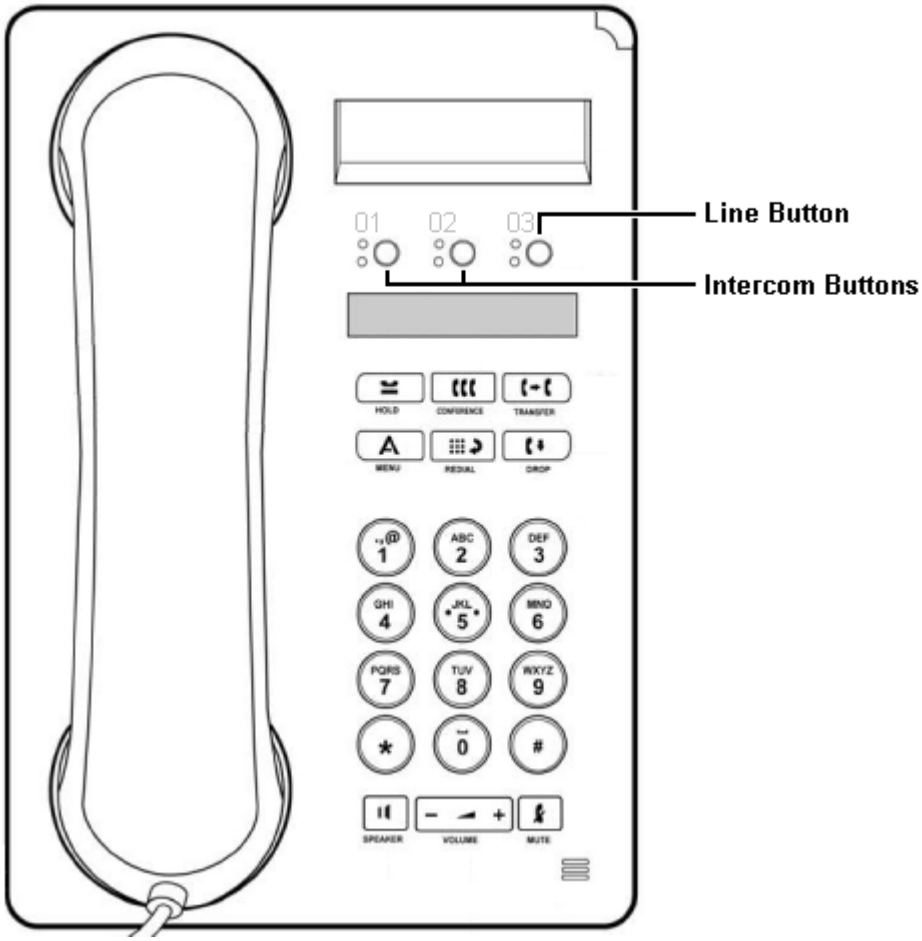
Chapter 2.
1400 Series Phones

2. 1400 Series Phones

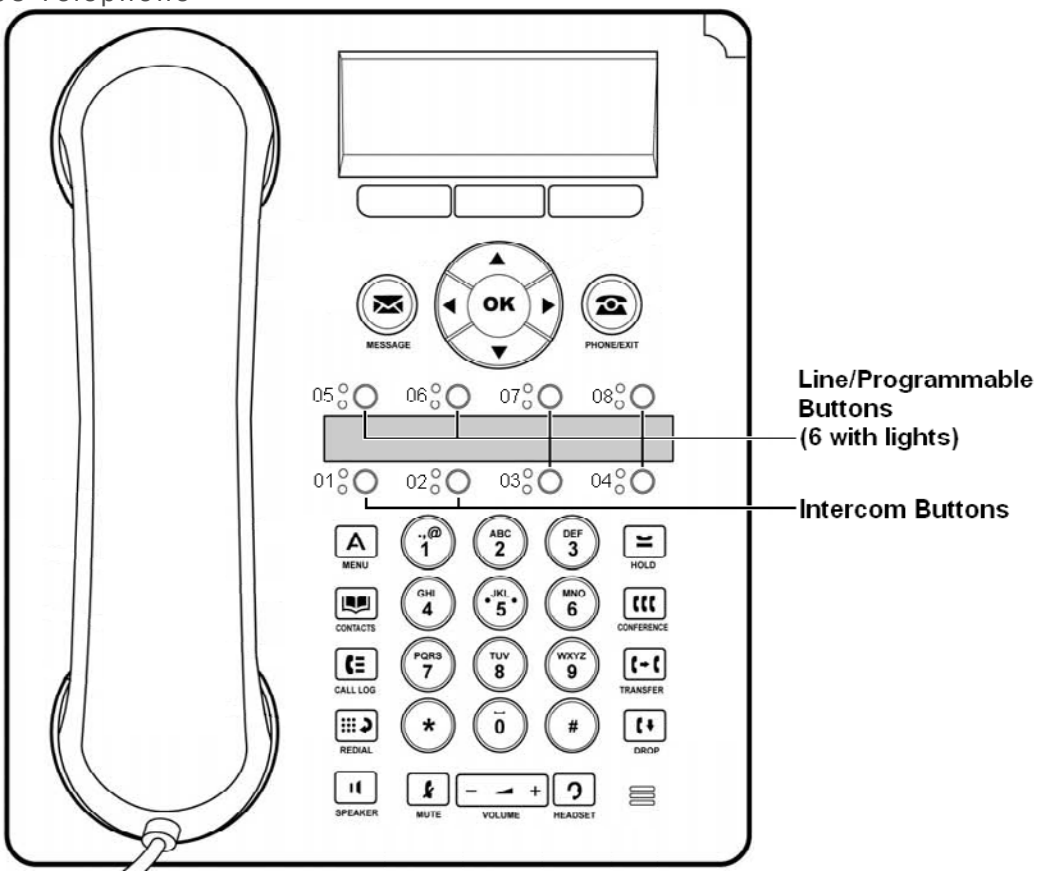
The IP Office PARTNER Version system supports the 1400 Series of Avaya digital telephones. Supported models are the 1403, 1408 and 1416.

Feature	1403	1408	1416
Programmable buttons with lights	0	6	14
Programmable buttons without lights	0	0	0
Intercom Buttons with light	2	2	2
Display	Yes	Yes	Yes
Speakerphone	No	Yes	Yes

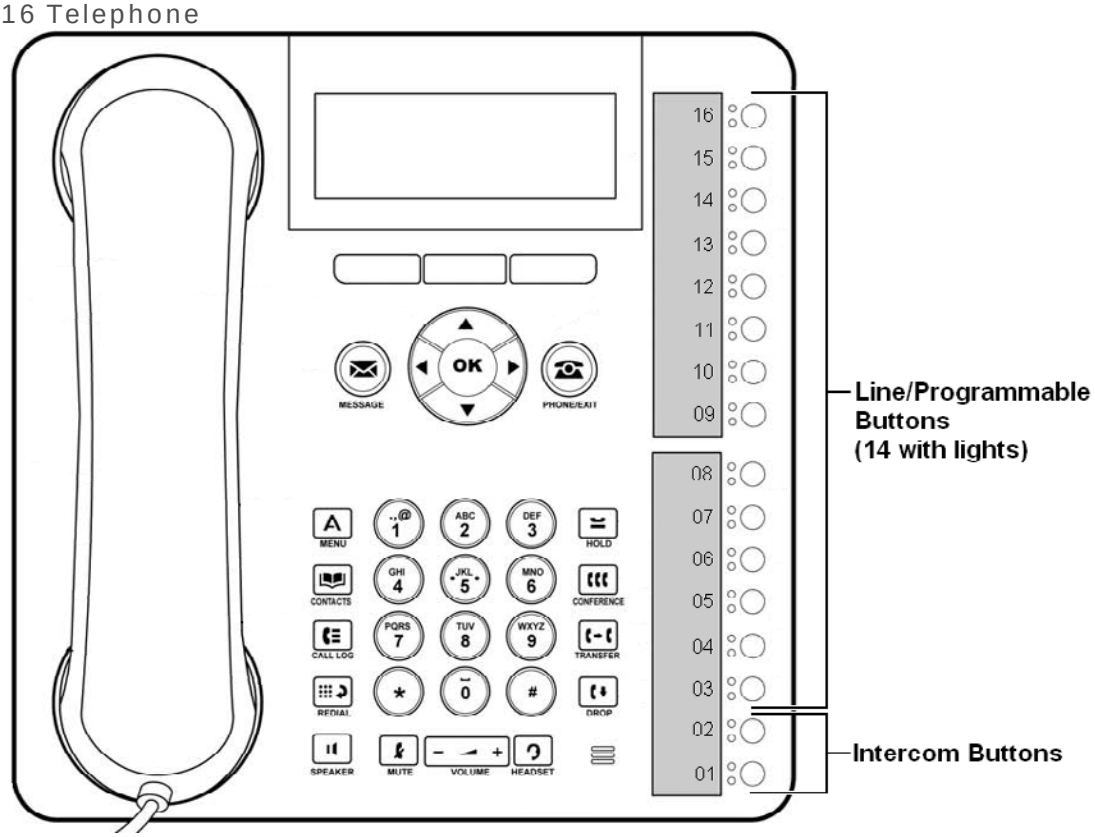
1403 Telephone



1408 Telephone



1416 Telephone



Chapter 3.
Basic Call Handling

3. Basic Call Handling

3.1 Making Calls

You can make a call by dialing an outside telephone number or an extension number.

- If the telephone number is one that is used frequently called it can be stored and dialed as a personal speed dial or using an auto dial button.

To make a call to another extension

1. Pick up the handset and press an idle INTERCOM button. The green light next to the button is on steady and you will hear the dial tone.
2. Dial the extension number.
    - On 1400 Series phones, if the other extension doesn't answer press AutCB (automatic callback) to have that extension call you after it is next used and then hangup.

To make an external call

1. Pick up the handset and press an idle line button. The green light next to the button is on steady and you will hear the dial tone.
2. Enter the dial-out code which is usually 9, then dial the telephone number. The dialled number will appear on the display.

Using the last number redial

1400 Series phones users can use the fixed REDIAL button on their phone to view details of previous calls and redial those number.

1. Lift the handset.
2. Press FEATURE 05. The digits are displayed as they are dialed.

To create a last number redial button (ETR 18D/ETR 34D Phone)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
4. Dial FEATURE 05.
5. The current setting of the button will now be set to Last Number Redial.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

3.2 Answering Calls

You can answer telephone calls that are ringing your extension or at another extension. If you regularly pick up calls for a specific extension you can program a call pickup 33 button for that specified extension.

To answer a call ringing at your own extension

1. Pick up the handset, you are connected to the incoming call. If more than one line is ringing, you are connected to the line that has been ringing for the longest time.
    - To answer a specific line press the button for that line.
    - On 1400 Series phones, the press >> to display additional options.
        - To VM can be used to send the ringing call to voicemail immediately.
        - Ignore can be used to quite the ringer.

To answer a call ringing at another extension (call pickup)

1. Pick up the handset.
2. Press an INTERCOM button and dial 6 followed by the two-digit number of the extension at which the call is ringing or parked.

3.3 Using Handsfree

The ETR 6D, ETR 18D, ETR 34D telephones each have a speaker and microphone which you can turn on by pressing SPKR. The 1408 and 1416 telephones also each have a speaker and microphone which you can turn on by pressing SPEAKER.

- In addition, on the ETR 6D, ETR 16D and ETR 34D telephones, you can turn just the microphone on and off by pressing MIC/HFAI. When the green light next to MIC/HFAI is on, the microphone is on.
- The 1403 telephones has a speaker but no microphone. This allows it to hear page calls and hear the progress of a call when making a call. However to handset must be used to speak on a call.

Room acoustics and background noise can affect the proper operation of the speakerphone. To ensure that your speakerphone works effectively, follow these guidelines:

- Avoid placing your telephone in areas with high background noise caused by sources such as motor vehicles, manufacturing equipment, loud voices, radios, printers, copiers, typewriters, other noisy office equipment or heater and air conditioning fans.
- Avoid talking before the other person is finished speaking. When you both talk at the same time, only one person's voice comes through.
- Do not use your speaker to make announcements over a loudspeaker paging system connected to your telephone system.
- When talking, always face your telephone and stay within two feet of it.
- Place your telephone at least six inches (15 cm) away from the edge of your desk.
- If you have difficulty hearing the other party, try increasing the speaker volume. If you have background noise, try turning off the microphone when the party at the other end is speaking and turning it on when you speak. If the difficulty persists, lift your handset to continue the conversation.
- In conference rooms, a separate speakerphone is recommended, since the built-in speaker on a system telephone is designed for individual use.

To make a call without lifting the handset

1. Press SPEAKER or SPKR to get a dial tone
2. Dial the number, you hear the call ringing. When the other party answers, you can talk without lifting the handset.

To switch modes

- If you are already on a call, you can switch from the handset to the speakerphone by pressing SPEAKER or SPKR and then hanging up the handset.
- If you are using the speakerphone and want to switch to the handset, lift the handset. The speaker and microphone are turned off.
- On ETR phones, to turn off the microphone when you are using the speaker, press MIC/HFAI. This will mute your voice so the other party cannot hear you. On 1400 Series phones to do this press the MUTE button.

3.4 Hands-Free Answer on Intercom

When you receive a voice-signaled intercom call, your telephone beeps once to indicate that your speaker has been turned on automatically, and you hear the caller's voice over your telephone's speaker. If you leave your microphone on all the time, you can start talking when you hear the caller, without lifting the handset. This feature is called Hands-Free Answer on Intercom (HFAI).

Any user in the system can make a voice-signaled call to an idle system telephone by pressing an intercom button and * and then either dialing an extension number.

You cannot make a voice-signaled call to an extension that has the Cell Phone Connect feature active. (The call will not appear at the extension.)

1. The HFAI feature can be turned on or off only when your telephone is idle. On ETR phones use the HFAI button, on 1400 Series phones use the MUTE button. Muting your voice while you are on a call only turns off the microphone for the duration of the call.
2. If you are already on a call, any additional voice-signaled call to your extension is turned into a normal ringing call instead.

3.5 Adjusting the Volume

While the phone is idle or ringing, you can adjust the ringer volume. When the phone is connected to a call you can adjust the speaker or handset volume.

To adjust the ringer volume

1. Use the ▲ up arrow and ▼ down arrow keys to change the ringer volume.

To adjust the caller volume

The volume that gets adjusted will depend on whether you are using the handset, speakerphone or headset (1408 and 1416 phones only) at the time you use this process.

1. Use the ▲ up arrow and ▼ down arrow keys to change the volume.

3.6 Holding Calls

When a call is on hold you can make and receive other calls on another line.

If a call is left on hold for longer than the specified interval it will recall to the extension that put it on hold.

To place a call on hold

1. During the call press the HOLD button or the button on which the call is taking place. The Green light next to the button will wink to show that the call is on hold.

To retrieve a call that you put on hold

1. Press the button next to the winking Green light. You are reconnected to the call. The green light changes to a steady green light.

3.7 Transferring Calls

Transferring a call lets users "pass" a call from one extension to another. Users can transfer both outside and internal calls to another extension.

To transfer a call

1. While the call is active press the TRANSFER button. The call is put on hold and the green light next to the line or intercom button will wink.
2. When you hear the dial tone, dial the number to which the call is to be transferred. Then do one of the following:
   - To transfer the call without announcing it (an unsupervised transfer) hang up or press the transfer button again as soon as you hear the extension ringing. The transfer is complete. If the extension is not answered the call will be returned to your extension. When your extension rings, left the handset to be reconnected to the caller.
   - To announce the call before announcing it (a supervised transfer), wait for the call to be answered. If the called party is willing to accept the call hang up or press the transfer button again to complete the transfer. If no one answers or the call is refused, press the button next to the winking green light to be reconnected to the caller.

3.8 Conferencing Calls

The Conference feature allows you to conference other parties (including yourself) into a call. A conference call can connect up to 5 calls, including up to 2 external callers.

To create a conference call

1. While active on a call, press the CONF or CONFERENCE button. The first party is now on hold.
2. Dial the telephone number of the second party.
3. When the call is answered press the CONF or CONFERENCE button again to add the second party to the call.
4. You can now speak to the first and second parties. An alternating Red/Green Flash appears at any extension connected during a conference call.
5. Repeat step 2 to add more parties.

To use hold during a conference call

If you need to answer or make another call during a conference call you can use the Hold feature. When you put a conference call on hold, the other parties can still talk to each other.

1. Press the HOLD button.
2. The Green light next to the intercom or line button will wink to show that the call is on hold.
3. To re-join the conference call press the button next to the Green light. You will rejoin the conference. An alternating Red/Green Flash appears next to your intercom or line button to indicate that you are in a conference call.

3.9 Joining Calls

Joining is adding yourself to a call in progress, the same way you do on a home telephone by picking up an extension.

You cannot:	• Join an intercom call or a conference call at anther extension. • Join a call at any extension that has Privacy activated. • Put a joined call on hold.
You can:	• Tell when someone has joined a call of yours when the lights next to the line button change to alternately flashing Red and Green. • Program Privacy onto a system telephone button to allow or prevent others from joining your calls. • Join a call that is being answered by the voice messaging system, but only if Automatic Extension Privacy is Not Assigned for the extensions associated with the voice messaging system hardware. If this is the case, when you join the call, the voice messaging system disconnects automatically so you can speak to the caller. • Add other parties to a call by pressing pool buttons if you are a pooled extension user. • Use Direct Line Pickup-Active Line to join a call on that line if a line is not assigned to your extension and access to that line is not restricted for that extension.

To join a call

A steady red light next to a line button indicates that a call is in progress on that line.

1. Press the line button next the the steady red light and lift the handset. Alternatively press INTERCOM and dial 68 followed by the two-digit line number.
2. The red and green lights alternately flash. You are now joined with the call.

Chapter 4.
Advanced Features

4. Advanced Features
4.1 Feature and Intercom Codes

Using Feature Codes

There are a wide range of features that can be used with your extension. They are accessed by pressing FEATURE and dialing the required feature code. Depending on the feature be used this is done either when the phone is idle or during a call.

- On ETR phones the FEATURE button is used to start dialing a feature code.
- On 1400 Series phones, select Feature on the display to start dialing a feature code. During a call you may need to select >> first to display the Feature option.
- On analog phones, at dial tone dial # followed by the feature code. To do this during a call you need to press recall first to get to dial tone.

The table below lists some of the features. Note that some feature may have restrictions on which extensions and or types of phone can us the feature.

Feature	Dial	Summary
Do Not Disturb On/Off 34	FEATURE 01	Switch your do not disturb on/off.
Recall	FEATURE 03	Send a recall or hook switch flash signal during a call.
Save Number Redial	FEATURE 04	Save the number dialed during a call. Then redial that number when idle.
Last Number Redial	FEATURE 05	Redial the last dialed number.
Conference Drop	FEATURE 06	Drop the last added party from a conference.
Privacy On/Off	FEATURE 07	Turn privacy on/off during a call.
Call Forwarding 26	FEATURE 11 *<Extension Number>*	Forward your calls to another extension.
Remote Call Forwarding 26	FEATURE 11 *<Personal Speed Dial>*	Forward your calls to an external number by selecting one of your personal speed dials as the destination.
Cell Phone Connect 26	FEATURE 11 * *<Personal Speed Dial>*	Similar to remote call forwarding but with your calls ringing at both your extension and the external number.
Account Code Entry	FEATURE 12	Enter and exit account code entry mode during a call.
Voice Mailbox Transfer 35	FEATURE 14 *<Extension Number>*	Transfer your current call to an extension's mailbox.
VMS Cover On/Off 44	FEATURE 15	Turn your voicemail cover on/off.
Caller ID Name Display	FEATURE 16	Toggle the display between name and number information.
Caller ID Inspect	FEATURE 17	See the call details of a call on another line button without interrupting your own current call.
Call Coverage 27	FEATURE 20 *<Own Extension>* *<Covering Extension>*	Enable call coverage from your extension to another extension. To disable call coverage, enter your own extension number twice.
Lock/Unlock 30	FEATURE 21	Lock or unlock your extension.
Absent Text Message 25	FEATURE 28	Set/clear an absent text message.
Contact Closure 1	FEATURE 41	Operate the system's first contact closure switch.
Contact Closure 2	FEATURE 42	Operate the system's second contact closure switch.
System Release	FEATURE 59	Display the software version of the system.

Intercom Codes

The following features are accessed by pressing an idle intercom button.

Feature	Dial	Summary
Call Pickup	Intercom 6 <*Extension Number*>	Answer the longest waiting call ringing at an extension.
Group Pickup	Intercom 66 <*Pickup Group*>	Answer the longest waiting call ringing any extension that is a member of the pickup group (1 to 4) selected.
Direct Line Pickup —Idle Line	Intercom 8 <*Line Number*>	Seize the specified line if it is idle and then make a call using that line.
Direct Line Pickup —Active Line	Intercom 68 <*Line Number*>	Answer or seize the call on the specified line.
Loudspeaker Paging	Intercom 70	Page the loudspeaker device attached to the system.
Simultaneous Paging	Intercom *70	Page both the loudspeaker device attached to the system and the extensions in calling group 71.
Group Calling —Ring	Intercom 7 <*Calling Group*>	Call the available extensions in one of the calling groups (1 to 4).
Group Calling —Page	Intercom *7 <*Calling Group*>	Page the available extensions in one of the calling groups (1 to 4).
Group Hunting —Ring	Intercom 77 <*Hunt Group*>	Call the available extensions in one of the hunt groups (1 to 6).
Group Hunting —Voice Signal	Intercom *77 <*Hunt Group*>	Page the first available extension in one of the hunt groups (1 to 6).

4.2 Naming Your Extension

You can assign a name to your extension, up to 15 characters long. The name is then displayed on the phone and also on other extensions when you make or receive calls.

To change your extension name (ETR 18D/34D)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press Intercom 1.
4. Enter the extension name.
   - Enter a character by pressing the indicated button until that character is displayed. If you pause more than 1 second after press a button, the cursor will move onto the next space.

1	1!"$%&'()+,-./		2	2abcABC		3	3defDEF
4	4ghiGHI		5	5jklJKL		6	6mnoMNO
7	7pqrsPQRS		8	8tuvTUV		9	9wxyzWXYZ
*	*:;<=>?@[\]^_`		0	0		#	# Space

   - Do not use punctuation characters such as #, ?, /, -, _ and , in the name. Start the name with an alphabetic character. Note that the name is case sensitive and must be unique.
- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To change your extension name (1408/1416 Phone)

1. At the extension press Admin.
2. Use the ▲ up or down ▼ arrow buttons to scroll the display to Telephone Programming. When displayed, press Select.
3. Use the ▲ up or down ▼ arrow buttons to scroll the display to Extension Name. When displayed, press Select.
4. The current setting is displayed.
5. To enter a new name dial the characters using the dial pad buttons. When finished press Enter.
   - Enter a character by pressing the indicated button until that character is displayed. If you pause more than 1 second after press a button, the cursor will move onto the next space.

1	1!"$%&'()+,-./		2	2abcABC		3	3defDEF
4	4ghiGHI		5	5jklJKL		6	6mnoMNO
7	7pqrsPQRS		8	8tuvTUV		9	9wxyzWXYZ
*	*:;<=>?@[\]^_`		0	0		#	# Space

   - Do not use punctuation characters such as #, ?, /, -, _ and , in the name. Start the name with an alphabetic character. Note that the name is case sensitive and must be unique.
3. To remove the current name press Clear.
   - Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

4.3 Absent Text Messages

The absent text message feature assists internal callers by displaying a message on their telephone. When another extension calls your extension, your active absent text message appears on the caller's display.

This feature is only supported on ETR 18D, ETR 34D, 1408 and 1416 telephones. It is not supported on ETR 6D and 1403 telephones.

To set and clear an absent text message you need to assign the feature to a programmable button with lights. The button can then be used to activate, select and deactivate the message.

To create an absent message button (ETR 18D/ETR 34D Phone)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
3. Dial FEATURE 28.
4. The current setting of the button will now be set to Absent Message.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create an absent message button (1408/1416 Phone)

1. At the extension press Admin.
2. Press the programmable button you want to change. Alternatively:
    - Use the ▲ up or down ▼ arrows to scroll to Telephone Programming. Press Select.
    - At the Button: prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press Program and either dial #28 or use the ▲ up or down ▼ arrow buttons to scroll the display to Absent Message and press Select.
5. The current setting of the button will now be set to Absent Message.

- Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

To activate an absent text message

1. Press the absent text message button. The first absent text message is displayed.
2. Scroll through the default messages by pressing the button beneath the word Next until the required message is displayed.

• Back soon • Do not disturb • Out to lunch • Away from desk	• Please call • At lunch until • Don't disturb until • With Cust. until	• Back tomorrow • On vacation • At home • Be right back	• On holiday until • Meeting until • With visitors until

3. Press the button beneath the word Activ to select the message shown on the display.
4. To add addition text or edit the existing text press More and then Edit.
5. To complete the process press the absent text message button again.

To deactivate the absent text message

1. Press the absent text message button. The green light flutters and the active absent text message is displayed.
2. Press the button beneath the word Dactiv.
3. To complete the process press the absent text message button again.

4.4 Forwarding Calls

All external, internal and transferred calls direct to your extension can be diverted to a different telephone internal extension number. You can enter the destination extension telephone number and select when calls are redirected using a programmed button.

Before you can automatically forward calls you need to assign the feature to a button with lights. The button can then be used to turn call forwarding on and off as required.

- Selected users may also be able to do remote call forwarding where they forward their calls to an external number. If that is the case, consult your system administrator, you can use your personal speed dials 31 as the forwarding destination.
- Some users may also be able to use cell phone connect, again consult your system administrator. With cell phone connect the call will ring at both your extension and at the remote call forwarding destination. This is sometimes called mobile twinning.

To create a call forwarding button (ETR 18D/ETR 34D Phone)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
3. Dial FEATURE 11.
4. At the Call Coverage Orig: prompt enter the extension number for which the button is being programmed.
5. At the Call Coverage Dest: prompt enter the destination number for the call coverage calls.
    - To forward to an external number, enter the personal speed dial (80 to 99) that contains the required external number.
    - To forward using cell phone connect/mobile twinning, enter * followed by the personal speed dial (80 to 99) that contains the required external number.
6. The current setting of the button will now be set to Call Forward O <*covered extension*> D <*destination extension*>.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create a call forwarding button (1408/1416 Phone)

1. At the extension press Admin.
2. Press the programmable button you want to change. Alternatively:
    - Use the ▲ up or down ▼ arrows to scroll to Telephone Programming. Press Select.
    - At the Button: prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press Program and either dial #11 or use the ▲ up or down ▼ arrow buttons to scroll the display to Call Forwarding and press Select.
5. At the Call Coverage Orig: prompt enter the extension number for which the button is being programmed.
6. At the Call Coverage Dest: prompt enter the destination extension number for the call coverage calls.
    - To forward to an external number, enter the personal speed dial (80 to 99) that contains the required external number.
    - To forward using cell phone connect/mobile twinning, enter * followed by the personal speed dial (80 to 99) that contains the required external number.
4. The current setting of the button will now be set to Call Forward O <*covered extension*> D <*destination extension*>.

- Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

4.5 Call Coverage

Call coverage is used to redirect all intercom, transferred, DID and outside calls on lines assigned to another extension. When call coverage is in use, covered calls are routed to the covering extension after a specified number of rings set by the system administrator.

- Intercom, transferred, DID, and outside calls on lines assigned ownership can be covered.
- Group calls, forwarded calls, transfer-return calls, voice-signaled calls, Voice Interrupt On Busy calls, Wake-Up Service calls, and calls to doorphone alert extensions are not covered.
- A single extension can cover multiple extensions; however, an extension programmed for call coverage can have only one covering extension. Only one call coverage button can be programmed per extension.
- If you activate call coverage at your extension, you still can intercept an outside call rerouted by coverage by pressing the outside line button that has the call appearance.
- You can program call coverage on a programmable button. Use a button with lights if you want a visual indication when your calls are being covered. When the green light is on, your calls are being covered; when the green light is off, call coverage is not active.
- If call coverage and do not disturb are already on, covered calls are routed immediately to the covering extension without ringing the covered extension. Similarly, if Call Coverage is on and a call begins to ring, you can turn on Do Not Disturb 34 to send that call immediately for coverage.
- If an extension has Call Coverage and VMS Cover 44 active, covered calls ring at the covering extension for the specified number of Call Coverage Rings.
  - If the covering extension does not answer, the call is routed to the voice mailbox of the extension that activated Call Coverage after the specified number of VMS Cover Rings. If the covering extension has Do Not Disturb 34 active, the call is routed immediately to the voice mailbox of the extension that activated Call Coverage.
- If an extension has Call Coverage active without voice mail coverage, covered calls ring at the covering extension for the specified number of Call Coverage Rings. Outside and intercom calls continue to ring at the covering extension until the call is answered or the caller hangs up.
- For transferred calls, if the covering extension does not answer, the call goes to the transfer return extension after the specified number of Transfer Return Rings.
- If an extension has Call Coverage and Call Forwarding active, calls are routed to the Call Forwarding destination extension (Call Forwarding takes precedence).

To send calls for coverage manually

1. Press FEATURE 20.
2. Dial the extension number of the covering extension.

To remove call coverage manually

1. Press FEATURE 20.
2. Dial your extension number again.

To use a call coverage button

1. Press the programmed button. When on, if programmed on a button with a light, the button's green light will be on.

To create a call coverage button (ETR 18D/ETR 34D Phone)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
4. Dial FEATURE 20.
5. At the Call Coverage Orig: prompt enter the extension number for which the button is being programmed.
6. At the Call Coverage Dest: prompt enter the destination extension number for the call coverage calls.
7. The current setting of the button will now be set to Call Coverage O <*covered extension*> D <*destination extension*>.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create a call coverage button (1408/1416 Phone)

1. At the extension press Admin.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to Telephone Programming. Press Select.
   - At the Button: prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press Program and either dial #20 or use the ▲ up or down ▼ arrow buttons to scroll the display to Call Coverage and press Select.
5. At the Call Coverage Orig: prompt enter the extension number for which the button is being programmed.
6. At the Call Coverage Dest: prompt enter the destination extension number for the call coverage calls.
7. The current setting of the button will now be set to Call Coverage O <*covered extension*> D <*destination extension*>.

- Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

4.6 Auto Dialing

Auto dialing uses numbers stored under one of the phone's programmable buttons. Whenever a number need to be dialed, pressing the button will dial the stored number.

To use an auto dial button

1. At dial tone or whenever you want to dial a number, press the programmed auto dial button.
2. The stored number is dialed.

To create an auto dial button (ETR 18D/ETR 34D Phone)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
4. To create an auto dial button to store an extension number press Intercom 1. For a button to store any other type of number press Intercom 2.
5. Enter the number for calls made using the button. The number can include * and # and the following special characters:

Function	Press to insert	Character	Description
Pause	HOLD	P	Inserts a 1.5 second pause.
Transfer	SPEAKER	R	Send a hook-switch flash signal.
Stop	CONFERENCE	S	Stop dialing.

6. The current setting of the button will now be AD-I (auto dial intercom) or AD-O (auto dial other) followed by the stored number.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create an auto dial - other button (1408/1416 Phone)

1. At the extension press Admin.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to Telephone Programming. Press Select.
   - At the Button: prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
3. Press Program and either press Intercom 2 or use the ▲ up or down ▼ arrow buttons to scroll the display to Auto Dial - Other and press Select.
4. At the AD-O: prompt enter the number for calls made using the button. The number can include * and # and the following special characters:

Function	Press to insert	Character	Description
Pause	HOLD	P	Inserts a 1.5 second pause.
Transfer	SPEAKER	R	Send a hook-switch flash signal.
Stop	CONFERENCE	S	Stop dialing.

5. The current setting of the button will now be AD-O followed by the stored number.

- Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

4.7 Locking Your Extension

You can use the lock feature to prevent unauthorized people from making outside calls from your extension while you are away from the extension.

To lock your extension

1. Press FEATURE 21.
2. Dial a four digit code using the 0 to 9 numbers .
3. Redial the four digit code.

To unlock your extension

1. Press FEATURE 21.
2. Dial the four digit code you used to lock the extension.

4.8 System Speed Dials

The system administrator can program up to 100 frequently used number as system speed dial numbers 600 to 699. Any user in the system can use a system speed dial by pressing FEATURE and dialing the three digit code of the system speed dial required.

- Except in special cases which the system administrator can configure, system speed dials do not override any dialing restrictions that apply to an extension.
- 1408 and 1416 phone users can view and use system speed dials through the phone's CONTACTS 50 menu. Extensions 10 and 11 can also edit the system speed dials through the menu.

To use a system speed dial

1. At dial tone or whenever you want to dial a number, press FEATURE and dial the three digit system speed dial code between 600 and 699.
2. The stored number is dialed.

4.9 Personal Speed Dials

You can create up to 20 personal speed dial codes, 80 to 99, to store frequently dialed numbers. The numbers can be quickly dialed by pressing FEATURE and the two-digit code for that personal speed dial.

The personal speed dial numbers programmed for a particular extension can only be used at that extension.

- If the system is connected to a PBX or Centrex system and a dial-out code (usually 9) is needed to place calls outside the PBX or Centrex system, include the dial-out code in Speed Dial numbers that must dial out of the PBX or Centrex system.
- You can store an account code as a personal speed dial for use during account code entry.
- Personal speed dials do not override any dialing restrictions that apply to an extension.
- 1408 and 1416 phone users can view, use and edit their personal speed dials through the phone's CONTACTS 50 menu.

To use a personal speed dial

1. At dial tone or whenever you want to dial a number, press FEATURE and dial the two digit personal speed dial code between 80 and 99.
2. The stored number is dialed.

To edit personal speed dials (ETR 18D/34D)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press Feature and the speed dial number to be programmed which must be between 80 and 99.
4. The current setting of the speed dial entry is displayed.
5. Enter the external number. The number can be up to 28 characters in length. The following keys can be used to enter special dialing commands:

Function	Press to insert	Character	Description
Pause	HOLD	P	Inserts a 1.5 second pause.
Transfer	SPEAKER	R	Send a hook-switch flash signal.
Stop	CONFERENCE	S	Stop dialing.

6. To remove the existing number press MIC/HFAI.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To edit personal speed dials (1408/1416 Phone)

1. At the extension, press Admin.
2. Use the ▲ up or down ▼ arrow buttons to scroll the display to Telephone Programming. When displayed, press Select.
3. Use the ▲ up or down ▼ arrow buttons to scroll the display to Personal Speed Dial. When displayed, press Select.
4. At the Code: prompt enter between 80 and 99 to select the speed dial entry that you want to edit.
5. The current setting of the speed dial entry is displayed.
6. Enter the external number and press Enter. The number can be up to 28 characters in length. Press Clear to remove any existing number. The following keys can be used to enter special dialing commands:

Function	Press to insert	Character	Description
Pause	HOLD	P	Inserts a 1.5 second pause.
Transfer	SPEAKER	R	Send a hook-switch flash signal.
Stop	CONFERENCE	S	Stop dialing.

- Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

4.10 Account Codes

The Account Code Entry feature is used to enter an account code up to 6 digit for any outside call, incoming or outgoing. An account code is typically used to identify a department, project, or client for charge-back or tracking purposes. An account code can be either forced or optional. When an extension is set up with the forced account code feature, the user must enter an account code before they can dial outside calls

To create an account code entry button (ETR 18D/ETR 34D Phone)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
3. Dial FEATURE 12.
4. The current setting of the button will now be set to Account Code Entry.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To enter an account code using an account code entry button

1. After lifting the handset or while already active on an outside call, press the programmed Account Code Entry button. If the button has lights, the green light turns on.
2. Enter an account code by dialing the account code using the telephone's dial pad. You can also use a system or person speed dial number programmed with the account code or press an Auto Dial button programmed with the account code.
3. Continue with the call.
4. At the end of the call press the programmed Account Code Entry button again.

To enter an account code without using a preprogrammed button

1. After lifting the handset (or while already active on an outside call), press FEATURE and dial 12.
2. Enter an account code by dialing the account code using the telephone's dial pad.
3. Continue with the call.
4. After the call, press FEATURE and dial 12 to end account code entry.

To create an account code entry button (ETR 18D/ETR 34D Phone)

4. At the phone press Feature 00.
5. Program Extension: is shown on the display.
6. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
4. Dial FEATURE 12.
5. The current setting of the button will now be set to Account Code Entry.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create an account code entry button (1408/1416 Phone)

1. At the extension press Admin.
2. Press the programmable button you want to change. Alternatively:
    - Use the ▲ up or down ▼ arrows to scroll to Telephone Programming. Press Select.
    - At the Button: prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press Program and either dial #12 or use the ▲ up or down ▼ arrow buttons to scroll the display to Account Code Entry and press Select.
5. The current setting of the button will now be set to Account Code Entry.

- Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

4.11 Parking Calls

Use this feature to place a call on a special type of hold where it can be retrieved from any extension in the system.

- You should park only one call at a time to ensure that you know which caller you are talking to when you retrieve the parked call.
- If you frequently park calls and you have a system telephone, program your extension number on an Auto Dial button, so you can park a call simply by pressing that button during the park process. See the section on Auto Dialing 29.

To park a call

1. While on a call, press TRANSFER and and dial your own two-digit extension number.
2. Hang up. If the call is not picked up within three minutes, it rings back at your extension.

To retrieve a parked call

1. Press an intercom button and 6 followed by the extension number of the extension that parked the call.

4.12 Call Pickup

You can use this feature to answer any intercom, outside, or transferred call ringing at another specified extension. This feature is useful for office colleagues who agree to answer each other's calls.

To create an call pickup button (ETR 18D/ETR 34D Phone)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
4. Dial 6 followed by the target extension number.
5. The current setting of the button will now be Call Pickup followed by the target extension number.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create an call pickup button (1408/1416 Phone)

1. At the extension press Admin.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to Telephone Programming. Press Select.
   - At the Button: prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press Program and either press Intercom 1 or use the ▲ up or down ▼ arrow buttons to scroll the display to Call Pickup and press Select.
5. At the Endpoint: prompt enter 6 followed by the target extension.
6. The current setting of the button will now be Call Pickup followed by the target extension number.

- Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

To use a call pickup button

1. Lift your handset.
2. Press the Call Pickup programmed button for the specified extension number. You are connected to the call that was ringing the specified extension.

4.13 Do Not Disturb

Use this feature to be able to press a programmed button to prevent incoming calls for the extension from ringing (lights may still flash). You can still use the extension to make calls.

- You need to program a button with lights. When the Do Not Disturb feature is on, the light is also on, indicating that the telephone will not ring.
- Use Do Not Disturb when you do not want the auto attendant or the voice messaging system to transfer calls to you.
- Use Do Not Disturb if you are assigned to a Hunt Group and you leave your desk, so calls to the Hunt Group will skip your extension and ring immediately at the next available extension in the group.
- To avoid missing calls when Do Not Disturb is not needed, turn it off.
- Unanswered calls that are transferred from an extension with Do Not Disturb active, ring at that extension if they transfer return.
- Users with VMS Cover 44 turned on can activate Do Not Disturb to send all calls immediately to their voice mailbox.
- Users with Call Coverage 27 turned on can activate Do Not Disturb to send all calls immediately to the covering extension.

To manually switch do not disturb on/off

1. Dial FEATURE 01.

To create a do not disturb button (ETR 18D/ETR 34D Phone)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
4. Dial Feature 01.
5. The current setting of the button will now be set to Do Not Disturb.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create a do not disturb button (1408/1416 Phone)

1. At the extension press Admin.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to Telephone Programming. Press Select.
   - At the Button: prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press Program and either dial #01 or use the ▲ up or down ▼ arrow buttons to scroll the display to Do Not Disturb and press Select.
5. The current setting of the button will now be set to Do Not Disturb.

- Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

4.14 Voice Mailbox Transfer

You can transfer a caller to directly to an extension's voice mailbox for the caller to leave a message without first ringing the extension. This feature is useful when you know that the extension user is not present and has not set do not disturb.

You can program a voice mailbox transfer button to transfer a caller directly to a voice mailbox by pressing the button and then dialing the mailbox subscriber's extension number. If you are using call Screening you cannot use Voice Mailbox Transfer.

To transfer a caller to an extensions mailbox

1. During the call press FEATURE 14 or press a Voice Mailbox Transfer button if the extension has one programmed.
2. Dial the two digit extension number of the extension for which the caller wants to leave a message. The caller is routed to the mailbox and hears the recorded greeting for that mailbox.
3. Hang up.

To create a voice mailbox transfer button (ETR 18D/ETR 34D Phone)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
4. Dial FEATURE 14.
5. The current setting of the button will now be set to Voice Mailbox Transfer.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create a voice mailbox transfer button (1408/1416 Phone)

1. At the extension press Admin.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to Telephone Programming. Press Select.
   - At the Button: prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
3. Press Program and either dial #14 or use the ▲ up or down ▼ arrow buttons to scroll the display to Voice Mailbox Transfer and press Select.
4. The current setting of the button will now be set to Voice Mailbox Transfer.

- Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

Chapter 5.
Using Voicemail

5. Using Voicemail

Each extension on the system has a voicemail mailbox by default. Except for special cases, for example the extensions connected to the fax machine and loudspeaker, the mailboxes are used when the extension has calls it does not answer within a set time (by default 15 seconds though this can be adjusted for each extension by the system administrator).

In addition to accessing your mailbox 39 and listening to your messages 40, you can perform a range of other actions:

- Record Your Name 41
  Your can replace the extension number played to callers with a recording of your name.
- Set an Access Code 42
  You can set an access code that must be entered whenever you try to access your mailbox.
- Record a Greeting 43
  You can replace the default greeting asking a caller to you mailbox to leave a message with your own recorded greeting.
- Switch Voicemail Cover On/Off 44
  You can select whether voicemail should be used to cover call ringing at your extension.
- Forward a Message 45
  You can forward a message to another extension or extensions. You can also add you own comments to the message.
- Call a Message Sender 45
  If the message includes the caller ID, you can initiate a call back to the message sender.
- Voicemail Email 46
  You can use email to receive notification of a new voicemail message.
- Visual Voice 47
  1408 and 1416 phone users can access their mailbox using a series of menus on the phone's display.

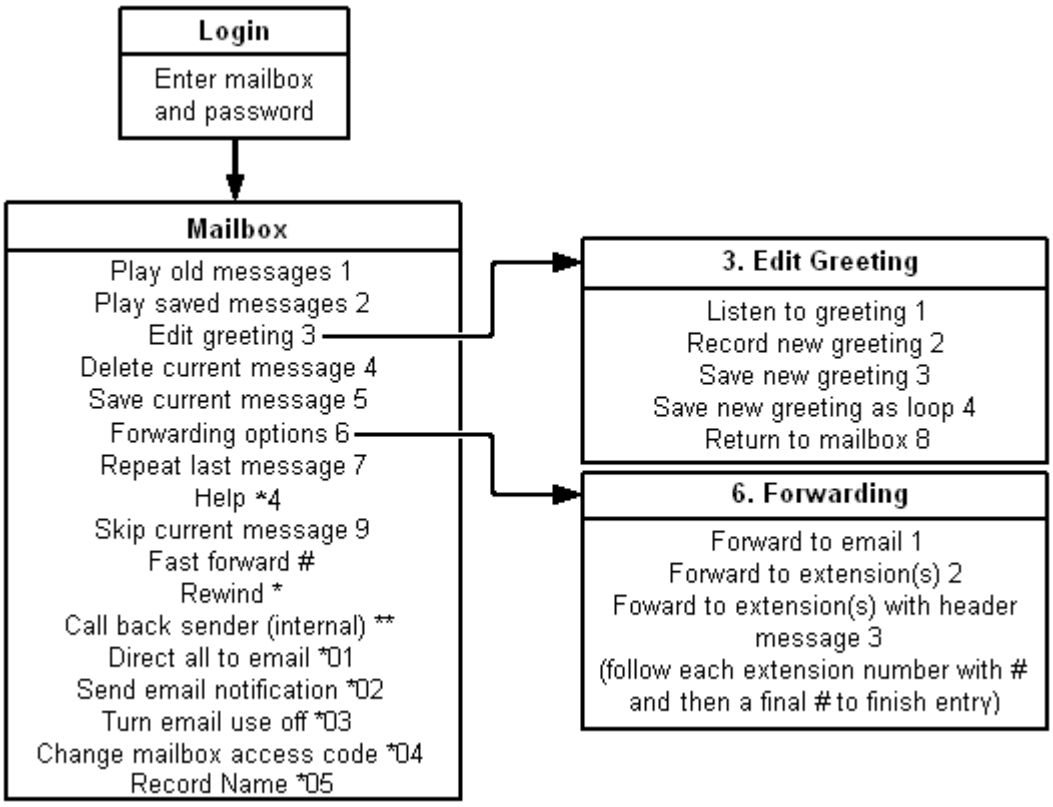
5.1 Accessing Your Mailbox

Your system administrator can also configure other methods of access including access to your mailbox from other phones and access to hunt group mailboxes.

- On 1408 and 1416 phones, you can access your mailbox using Visual Voice 47.

Accessing Your Mailbox

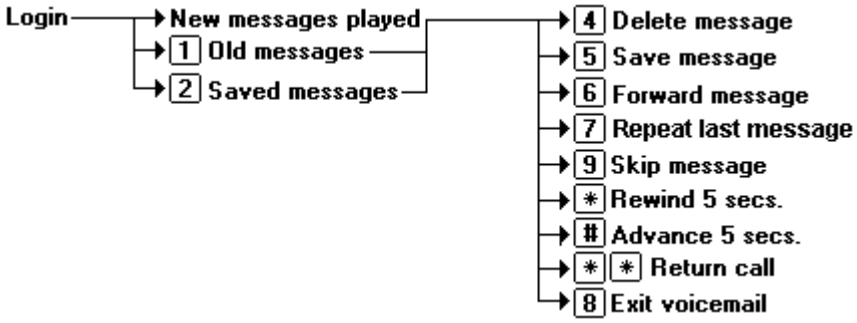
1. Press the Intercom 1 or Intercom 2 button and dial 777.
2. If your mailbox has an access code 42 set, you will be prompted to enter it. Enter your access code.
3. You will hear a prompt telling you how many messages you have. If you have any new messages the voicemail system will start playing your new messages.
4. You can use the controls indicated below to manage your mailbox and messages.


Login
Enter mailbox and password
Mailbox
Play old messages 1
Play saved messages 2
Edit greeting 3
Delete current message 4
Save current message 5
Forwarding options 6
Repeat last message 7
Help *4
Skip current message 9
Fast forward #
Rewind *
Call back sender (internal) **
Direct all to email *01
Send email notification *02
Turn email use off *03
Change mailbox access code *04
Record Name *05
3. Edit Greeting
Listen to greeting 1
Record new greeting 2
Save new greeting 3
Save new greeting as loop 4
Return to mailbox 8
6. Forwarding
Forward to email 1
Forward to extension(s) 2
Foward to extension(s) with header message 3
(follow each extension number with # and then a final # to finish entry)

IMPORTANT
Once a new message has been listened to, it is marked as 'old' and is automatically deleted after 24 hours. If you do not want the message deleted, you must mark it as 'saved' by pressing 5 while listening to the message.

5.2 Listening to Your Messages

When you log in to your mailbox you are automatically played any new messages. After a message has been played it is marked as being an old message. Old messages are automatically deleted after 24 hours unless you mark the message as saved.



When you listen to any of your messages you have the following options:

- Press 4 to delete the message.
- Press 5 to save the message.
- Press 6 to forward the message. See Forwarding a Message 45.
- Press 7 to repeat the last message.
- Press 8 to exit voicemail.
- Press 9 to skip to the next message.
- Press * to rewind the message a few seconds.
- Press # to advance the message a few seconds.
- Press * * to return the call. See Replying to Messages 45.

To listen to an old message

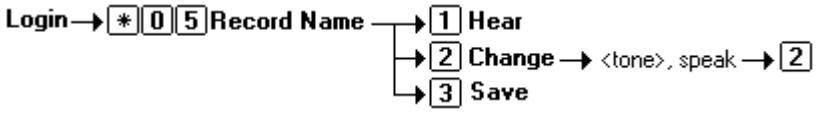
1. Login 39 to your mailbox.
2. Press 1 to listen to your old messages.

To save a message

1. Press 5 when listening to a new or old message.

5.3 Record Your Name

You can record your name if required. Your name recording is then used for various features such as telling callers which mailbox they have reached rather than just stating the extension number.



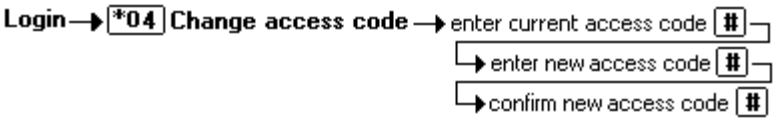
To record or change your greeting

1. Login 39 to your mailbox.
2. Press *05 to select the option to record your name.
3. Press 1 to hear your current name recording.
4. Press 2 to record your name. .
5. When you are prompted speak your name. The maximum length that can be recorded is 5 seconds.
6. Press 2 when you have finished recording your name.
7. Press 1 to listen to your new name recording. After you have listened you can:
   - Press 3 to save the new recording.
   - Press 2 to record the new name again.

5.4 Changing Your Access Code

You can set an access code for your mailbox. If you set an access code, it will be requested whenever you access the mailbox to collect messages. When changing your access code:

- Enter least four digits. If you enter less than four numbers you will be prompted to enter a longer code.
- Do not set an obvious code, for example:
  - Do not match your extension number.
  - Do not use a sequence of digits, for example 1234.
  - Do not use the same repeated digit, for example 1111.
- If you forget your access code, your system administrator can clear it.



To change your access code

1. Login 40 to your mailbox.
2. Press *04 to change your access code.
3. Enter your current access code and press #. If you have no current access code just press #.
4. Enter your new access code followed by #. The access code must be between 4 and 15 digits in length.
5. Re-enter your new access code followed by #.The access code will now be changed.
   - The system will prompt you if the codes do not match or is not acceptable. It will also confirm the change of access code if successful.

To remove your access code

1. Log in to your mailbox.
2. Press *04 to change your access code.
3. Enter your current access code and press #.
4. When you are asked to enter your new access code, press #.
5. When you are asked to re-enter your access code, press #. Your access code will have been removed.

5.5 Changing Your Greeting

By default the system will play a general greeting to callers who are directed to your mailbox, stating your extension number, or name if you have recorded on, and askign them to leave a message after the tone. You can override the default greeting with your own personal greeting.

To listen to your greeting

1. Login 39 to your mailbox.
2. Press 3 to select the option to edit your greeting.
3. Press 1 to hear your greeting. If no greeting has been recorded your will hear *"The message has not yet been recorded"*. You need to record a message.

To record or change your greeting

1. Login 39 to your mailbox.
2. Press 3 to select the option to edit your greeting.
3. Press 2 to change your greeting.
4. When you are prompted speak your new greeting.
   - The greeting must be longer than 3 seconds.
   - A long (approximately 10 seconds) period of silence will disconnect you from voicemail.
5. Press 2 when you have finished recording your greeting.
6. Press 1 to listen to your new greeting. After you have listened to your greeting you can:
   - Press 3 to save the new greeting. Your new greeting will be used.
   - Press 2 to re-record the new greeting.
   - Press 4 to save the new greeting for playing on a continuous loop. This option can be used to continually play the greeting to a caller; the caller will not be able to leave a message. Note that once this option is selected, the greeting cannot be changed back to a normal greeting except by recording a new greeting.

5.6 Voicemail Coverage On/Off

You can chose to have calls to your extension be rerouted to your voicemail mailbox if you do not answer the call within a set number of rings, the default being 3 rings. This is called VMC Cover. The number of rings used for your extension is set by your system administrator.

- If an extension has Call Coverage and VMS Cover active, covered calls ring at the covering extension for the specified number of Call Coverage Rings.
  - If the covering extension does not answer, the call is routed to the voice mailbox of the extension that activated Call Coverage after the specified number of VMS Cover Rings. If the covering extension has Do Not Disturb 34 active, the call is routed immediately to the voice mailbox of the extension that activated Call Coverage.
- Users with VMS Cover turned on can activate Do Not Disturb 34 to send ringing calls immediately to their voice mailbox.
- Note that when your voicemail cover is off, you can still access the messages in your mailbox and other users can still use forwarding 45 to send messages to your mailbox.

To manually switch VMS cover on/off

1. Dial FEATURE 15.

To create a VMS cover button (ETR 18D/ETR 34D Phone)

1. At the phone press Feature 00.
2. Program Extension: is shown on the display.
3. Press the button that you want to edit or enter between 03 to 80 to select the line button. The current setting of the button is displayed.
4. Dial FEATURE 15.
5. The current setting of the button will now be set to VMS Cover.

- Exit programming by pressing Feature 00. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create a VMS cover button (1408/1416 Phone)

1. At the extension press Admin.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to Telephone Programming. Press Select.
   - At the Button: prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
3. Press Program and either dial #15 or use the ▲ up or down ▼ arrow buttons to scroll the display to VMS Cover and press Select.
4. The current setting of the button will now be set to VMS Cover.

- Exit programming by pressing PHONE/EXIT. Alternatively use the Back button to move to another menu.

5.7 Forwarding a Message

You can forward a message to a different mailbox or to several mailboxes at the same time. When you forward a message you can record your own comment to the start of the message.

To forward a message:

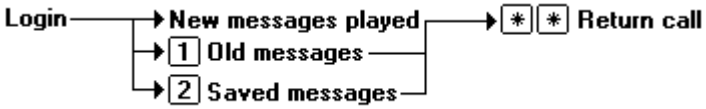
1. When you are listening to a message, press 6.

- To forward the message without adding a comment press 2.
- To forward the message after adding a comment at the start press 3. Record your comment after the tone. Record your comment and press # to finish recording.

2. Enter the extension number to which you want to forward the message and press #.
    - If you want to send the message to more than one mailbox enter each mailbox extension number separated by a #.
3. Press # to finish addressing and forward the message.

5.8 Calling a Message Sender

You can call the person who left a message in your mailbox. Both internal and external callers can be called back. For external callers, you can only reply if their caller ID was available when the message was left.



To reply to a voice message

1. While you listen to a message, press * *. If a caller ID was received when the message was left, a call will be placed on that number.

5.9 Voicemail Email

You can have notification of new messages sent to your email address. The notification can be a simple alert to tell you that you have a message or a copy of the voicemail message if required.

In order to use this feature your system administrator must configure your phone system to use email and enter your email address into the system configuration. If this has not been done your will hear *'Email is not enabled on this mailbox* ' whenever you try to use an email option.

To switch on email notification

You can set up your mailbox so that any messages received in future are forwarded to your email address. The messages are not stored in your voicemail mailbox.

1. Login 39 to your mailbox.
2. Select the required type of email notification.
   - For a email alert press *02.
   - To have the message forwarded to your email, press *01.

To forward a message to email

If you are listening to a message you can send the message to your email either whilst listening to it or immediately after it has been played.

1. During or immediately after playing a message, press 6.
2. Press 1. The message is forwarded to your email address.

To switch off email notification

If you have chosen any of the email notification options, you can switch them off from your telephone.

1. Log into your mailbox.
2. Press *03. You hear a confirmation message to tell you that the option is now turned off.

5.10 Visual Voice

1408 and 1416 phones can access their mailbox messages and settings using a series of menus displayed on the phone. This is called Visual Voice.

To access visual voice press the MESSAGE button on the phone. The controls available are:

- Listen
  Access your own voicemail mailbox. When pressed the screen will show the number of New, Old and Saved messages. Select one of those options to start playback of messages in that category. Use the ▲ up arrow and ▼ arrow keys to move through the message. Use the options below
  - Listen
    Play the message.
  - Pause
    Pause the message playback.
  - Delete
    Delete the message.
  - Save
    Mark the message as a saved message.
  - Call
    Call the message sender if a caller ID is available.
  - Copy
    Copy the message to another mailbox. When pressed as number of additional options are displayed.
- Message
  Record and send a voicemail message to another mailbox or mailboxes.
- Greeting
  Change the main greeting used for callers to your mailbox. If no greeting has been recorded then the default system mailbox greeting is used.
- Email
  This option is only shown if you have been configured with an email address for voicemail email usage in the IP Office configuration. This control allows you to see and change the current voicemail email mode being used for new messages received by your voicemail mailbox. Use Change to change the selected mode. Press Done when the required mode is displayed. Possible modes are:
- Password
  Change the voicemail mailbox password. To do this requires entry of the existing password.
- Voicemail
  Switch voicemail coverage on/off.

Using the Visual Voice Button for Voicemail Transfer

If pressed when you have a call is connected, the MESSAGE button allows entry of an extension number for direct to voicemail transfer of the connected call.

Chapter 6.
Contacts (1408/1416)

6. Contacts (1408/1416)

This menu is accessed by pressing the key. It is used to display names and numbers that you can then use for making calls.

The directory includes names stored for use by all users, names stored for use by just you and the name and numbers of all the other users and groups on the phone system.

6.1 Viewing Contacts Details

1. Access the contacts directory:
   a. Press the CONTACTS key. The directory menu is displayed.
   b. Use the left and right arrow keys to select which type of directory entries you want displayed.
      - All
        All directory entries.
      - Personal
        Your personal speed dials.
      - External
        The system speed dials.
      - Users
        The names and numbers of other users on the telephone system.
      - Groups
        The names and numbers of hunt groups on the telephone system.
   c. Either press the List soft key to display all the directory entries or start dialing the name to display only matching entries.
   d. Use the up and down arrow keys to scroll through the matching entries. To return to the start to match a different directory selection, press the Clear soft key.
2. When the required entry is displayed, press Details to display the name and number.
3. Use the up and down arrow key to switch between the name and the number.
4. The range of soft keys available will depend on the type of directory entry:
   - Call 51
     Make a call to the stored number.
   - Back
     Go back to the directory listing.
   - More
     If the contact is one of your personal directory entries, the More soft key will be present to allow you to access the options below. It is also present for external directory entries if you have been setup as a system phone user by the system administrator.
   - Edit 51
     Edit the name and number.
   - Delete 52
     Delete the name and number.

6.2 Make a Call from the Directory

You can use any directory contacts to make a call. You can also use the directory in almost any telephone function where you need to select the number for a destination, for example during transfers.

1. Access the contacts directory:
   a. Press the CONTACTS key. The directory menu is displayed.
   b. Use the left and right arrow keys to select which type of directory entries you want displayed.
      - All
        All directory entries.
      - Personal
        Your personal speed dials.
      - External
        The system speed dials.
      - Users
        The names and numbers of other users on the telephone system.
      - Groups
        The names and numbers of hunt groups on the telephone system.
   c. Either press the List soft key to display all the directory entries or start dialing the name to display only matching entries.
   d. Use the up and down arrow keys to scroll through the matching entries. To return to the start to match a different directory selection, press the Clear soft key.
2. When the required entry is displayed, press Call.
3. Continue as for a normally dialed call.

6.3 Editing a Contact

You can edit the contacts in your own personal directory.

1. Access your personal directory contacts:
   a. Press the CONTACTS key. The directory menu is displayed.
   b. Use the left and right arrow keys to select your *Personal* directory. Extensions 10 and 11 can also add, edit and delete entries from the External directory.
   c. Either press the List soft key to display all the directory entries or start dialing the name to display only matching entries.
   d. Use the up and down arrow keys to scroll through the matching entries. To return to the start to match a different directory selection, press the Clear soft key.
2. Locate the required entry.
3. Press the Details soft key.
4. Press the More soft key and then the Edit soft key.
   - The menu now allows editing of the name and number.
   - Use the up and down arrow keys to switch between number and name entry.
   - When the name has been entered as required, press the OK soft key.
   - When the number has been are required, press the Save soft key.
   - To exit without making any changes, press the Cancel soft key.

6.4 Adding a New Contact

So long as the telephone system capacity has not been reached, you can add up to 100 personal directory entries.

1. Access your personal directory contacts:
    a. Press the CONTACTS key. The directory menu is displayed.
    b. Use the left and right arrow keys to select your *Personal* directory. Extensions 10 and 11 can also add, edit and delete entries from the External directory.
2. Press the New soft key.
    - The menu now allows editing of the name and number.
    - Use the up and down arrow keys to switch between number and name entry.
    - When the name has been entered as required, press the OK soft key.
    - When the number has been are required, press the Save soft key.
    - To exit without making any changes, press the Cancel soft key.

6.4.1 Add a Contact from the Call Log

You can add a name and number shown in your call log to your personal speed dials. You can only do this if there is space in your allowed 20 personal speed dials.

1. Access the call log.
    a. Press the CALL LOG button.
    b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
    c. Use the up and down arrow keys to scroll through the records.
2. Press the Details soft key. The individual details of the currently selected call record are displayed.
3. Press the +Contact soft key.
4. Use the up and down arrow keys to switch between the name and number details for the new contact.
5. Using the telephone keypad and the Bksp soft key you can edit the name and the number. When editing the number, use the Pause soft key to enter a comma (,) for a 1 second pause in the number dialing.
6. When the name and number are set as required, press the Save soft key. To return without saving the name and number, press the Cancel soft key.

6.5 Deleting a Contact

You can delete a personal speed dial from your contacts.

1. Access your personal directory contacts:
    a. Press the CONTACTS key. The directory menu is displayed.
    b. Use the left and right arrow keys to select your *Personal* directory. Extensions 10 and 11 can also add, edit and delete entries from the External directory.
    c. Either press the List soft key to display all the directory entries or start dialing the name to display only matching entries.
    d. Use the up and down arrow keys to scroll through the matching entries. To return to the start to match a different directory selection, press the Clear soft key.
2. Locate the required entry.
3. Press the Details soft key.
4. Press the More soft key and then the Delete soft key.

Chapter 7.
Call Log (1408/1416)

7. Call Log (1408/1416)

This menu is accessed by pressing the key.

- Making a Call 54
- Viewing Call Details 55
- Deleting a Record 56
- Deleting All Records 56
- Add a Record to Your Contacts 56

7.1 Using the Call Log

1. Access the call log.
   a. Press the CALL LOG button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Pressing OK will make a call to the number stored with the currently displayed record.
3. You can use the functions listed at the bottom of the display by pressing the soft key below the function name.
   - Call 54
     Make a call to the number stored in the currently displayed call log record.
   - Details 55
     Display more details about the current call log record. You can then also add the caller details to your personal directory 56 if required.
   - More
     Switch between the different sets of available soft key functions.
   - Delete 56
     Deletes the current displayed record.
   - Del All 56
     Delete all the call log records, not just the current types of records being shown.
4. To exit the call log, press the PHONE/EXIT button.

7.2 Making a Call from the Call Log

You can use the call log to make calls to the number included in the currently selected call record.

1. Access the call log.
   a. Press the CALL LOG button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Press the Call soft key or OK to call the number displayed in the call record.

7.3 Viewing Call Details

You can view additional details about the currently shown call.

1. Access the call log.
   a. Press the CALL LOG button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Press the Details soft key. The individual details of the currently selected call record are displayed.
3. Use the ▲ up and down ▼ arrow keys to scroll through the details. The possible values are:
   - Time
     The time of the call.
   - Duration
     The length of the call.
   - Name
     The name of the caller if known.
   - Number
     The number of the caller if available.
   - Reason
     The type of call record, ie. *Answered*, *Outgoing* or *Missed*.
   - Count
     How many time a call of the same type, name and number has occurred. Only the details of the most recent call are kept in your call log. However the count will indicate if the caller has rung or has been rung several times.
4. While you are in the details of a call record, the soft key functions available are:
   - Call
     Call the number shown in the call record. You can also do this by pressing the OK button.
   - +Contact
     Add the name and number to your personal directory. You can edit the details before they are added.
   - Back
     Go back to the normal call screen to select another call record.

7.4 Deleting a Record

You can delete the currently displayed call record.

1. Access the call log.
   a. Press the CALL LOG button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Press the More soft key.
3. Press the Delete soft key to delete the currently displayed call log record.

7.5 Deleting All Records

You can delete all call records from your call log.

1. Access the call log.
   a. Press the CALL LOG button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Press the More soft key.
3. Press the Del All soft key to delete all your call log records.

7.6 Adding a Record to Your Contacts

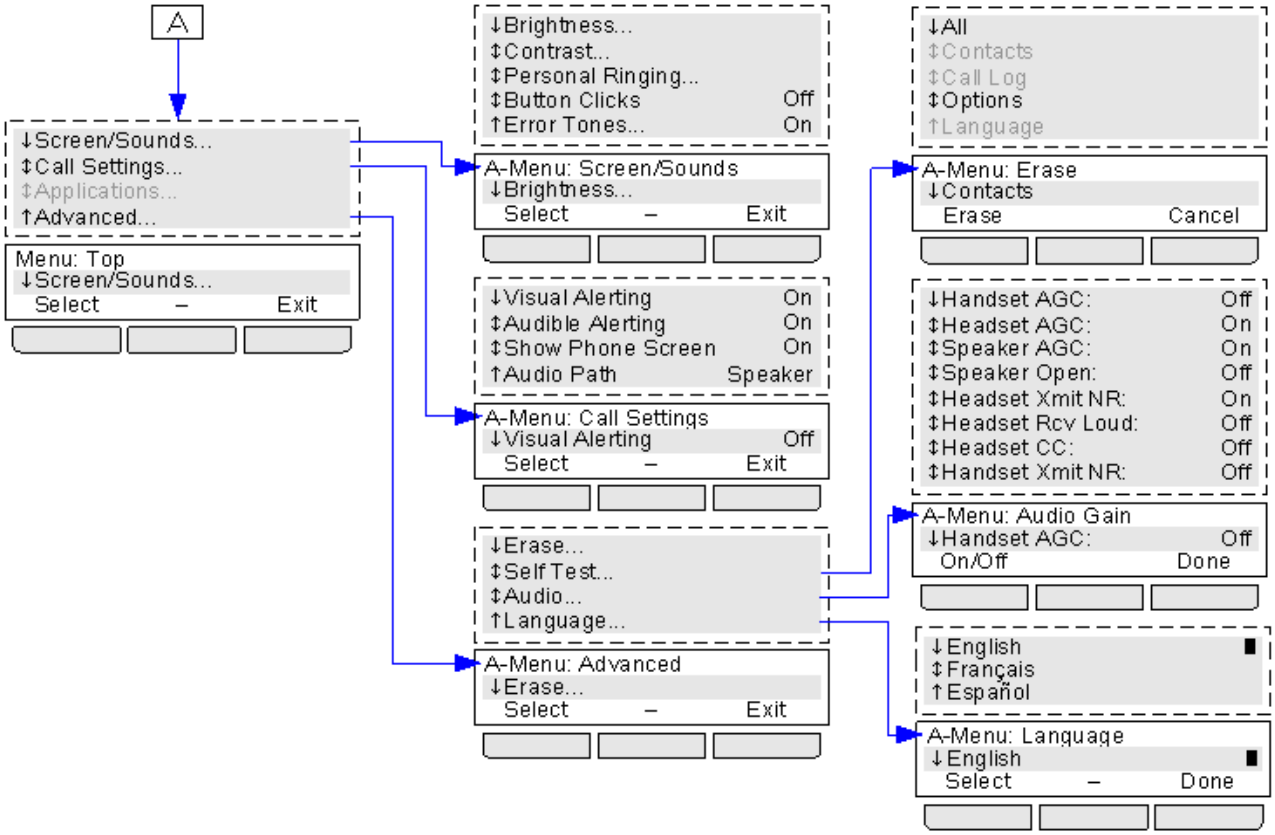
You can add a name and number shown in your call log to your personal speed dials. You can only do this if there is space in your allowed 20 personal speed dials.

1. Access the call log.
   a. Press the CALL LOG button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Press the Details soft key. The individual details of the currently selected call record are displayed.
3. Press the +Contact soft key.
4. Use the ▲ up and down ▼ arrow keys to switch between the name and number details for the new contact.
5. Using the telephone keypad and the Bksp soft key you can edit the name and the number. When editing the number, use the Pause soft key to enter a comma (,) for a 1 second pause in the number dialing.
6. When the name and number are set as required, press the Save soft key. To return without saving the name and number, press the Cancel soft key.

Chapter 8.
Phone Settings (1408/1416)

8. Phone Settings (1408/1416)

The [A] MENU key is used to access a range of phone settings for your 1400 Series phone.



Options that are greyed out in the diagram above are not accessible or used.

8.1 A-Menu Auto Exit

The Show Phone Screen option only applies to the A-menu screens accessed when you press the [A] key. If the option is on, if you receive a call while in the A-menu, the phone will automatically exit the menus and display the call details.

1. Press the [A] MENU button.
2. Use the ▲ up and down ▼ arrow keys to locate the option Call Settings....
3. Press the Select soft key.
4. Use the ▲ up and down ▼ arrow keys to locate the option Show Phone Screen.
5. Use the ◀ left and right ▶ arrow keys or press the On / Off soft key to change the setting.
6. When completed, press the Done soft key.
7. Press the Exit soft key to exit the menus.

8.2 Visual Alerting

The message waiting lamp at the top-right corner of the phone can also be used to indicate when you have a call alerting your phone. The lamp is flashed to indicate a call waiting to be answered.

1. Press the A MENU button.
2. Use the ▲ up and down ▼ arrow keys to locate the option Call Settings....
3. Press the Select soft key.
4. Use the ▲ up and down ▼ arrow keys to locate the option Visual Alerting.
5. Use the ◀ left and right ▶ arrow keys or press the On / Off soft key to change the setting.
6. When completed, press the Done soft key.
7. Press the Exit soft key to exit the menus.

8.3 Audible Alerting

The phone's audible ringer can be switched off. This only affects the ring and does not affect the visual alerting 59.

1. Press the A MENU button.
2. Use the ▲ up and down ▼ arrow keys to locate the option Call Settings....
3. Press the Select soft key.
4. Use the ▲ up and down ▼ arrow keys to locate the option Audible Alerting.
5. Use the ◀ left and right ▶ arrow keys or press the On / Off soft key to change the setting.
6. When completed, press the Done soft key.
7. Press the Exit soft key to exit the menus.

8.4 Ring Sound

You can adjust the sound of the ring used by the phone.

1. Press the A MENU button.
2. Press the Select soft key.
3. Use the ▲ up and down ▼ arrow keys to locate the option Personalized Ringing. Press the Select soft key.
   - Use the ▲ up and down ▼ arrow keys to scroll through the different available ring patterns.
   - Press the Play soft key to repeat the currently display ring pattern.
   - To make the currently displayed ring pattern the selected ring pattern for the phone press the Save soft key.
   - To leave the menu without making any changes press the Cancel soft key.
4. When completed, press the Done soft key.
5. Press the Exit soft key to exit the menus.

8.5 Display Brightness

1. Press the A MENU button.
2. Press the Select soft key.
3. Press the Select soft key.
4. Use the ◀ up and down ▶ arrow keys to adjust the brightness as required.
5. When completed, press the Done soft key.
6. Press the Exit soft key to exit the menus.

8.6 Display Contrast

1. Press the A MENU button.
2. Press the Select soft key.
3. Use the ▲ up and down ▼ arrow keys to locate the option Contrast.
4. Press the Select soft key.
5. Use the ◀ left and right ▶ arrow keys to adjust the brightness as required.
6. When completed, press the Done soft key.
7. Press the Exit soft key to exit the menus.

8.7 Display Language

The system administrator can configure which language your extension uses. Though the phone's menu you can change this settings.

IP Office PARTNER Version only supports English, French and Latin Spanish. The phone menu may display other languages supported by the phone. If one of these other languages is selected, the languages displayed on the phone menu may be a mix of that language and English.

1. Press the A MENU button.
2. Use the ▲ up and down ▼ arrow keys to locate the option Advanced.
3. Press the Select soft key.
4. Use the ▲ up and down ▼ arrow keys to locate the option Language.
5. Press the Select soft key.
6. Use the ▲ up and down ▼ arrow keys scroll through the different languages available.
7. To select the language currently displayed, press the Select soft key or OK.
8. When completed, press the Done soft key.
9. Press the Exit soft key to exit the menus.

8.8 Error Tones

1. Press the A MENU button.
2. Press the Select soft key.
3. Use the ▲ up and down ▼ arrow keys to locate the option Error Tone.
4. Use the ◀ left and right ▶ arrow keys or press the On / Off soft key to change the setting.
5. When completed, press the Done soft key.
6. Press the Exit soft key to exit the menus.

8.9 Button Clicks

While using the phone menus, the phone can provide a key press confirmation click sound. This can be turned off if it is annoying.

1. Press the A MENU button.
2. Press the Select soft key.
3. Use the ▲ up and down ▼ arrow keys to locate the option Button Clicks.
4. Use the ◀ left and right ▶ arrow keys or press the On / Off soft key to change the setting.
5. When completed, press the Done soft key.
6. Press the Exit soft key to exit the menus.

8.10 Default Handsfree Audio Path

By default, when you make a call or answer a call without lifting the handset, the audio is played through the phone's speaker while you speak via the phone's microphone.

If you have a headset attached, you can change the phone's behavior so the audio is played through the headset by default rather than the speaker.

1. Press the A MENU button.
2. Use the ▲ up and down ▼ arrow keys to locate the option Call Settings....
3. Press the Select soft key.
4. Use the ▲ up and down ▼ arrow keys to locate the option Audio Path.
5. Use the ◀ left and right ▶ arrow keys or press the Change soft key to change the setting.
6. When completed, press the Done soft key.
7. Press the Exit soft key to exit the menus.

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IP Office Essential Edition

PARTNER Version Phone User Guide

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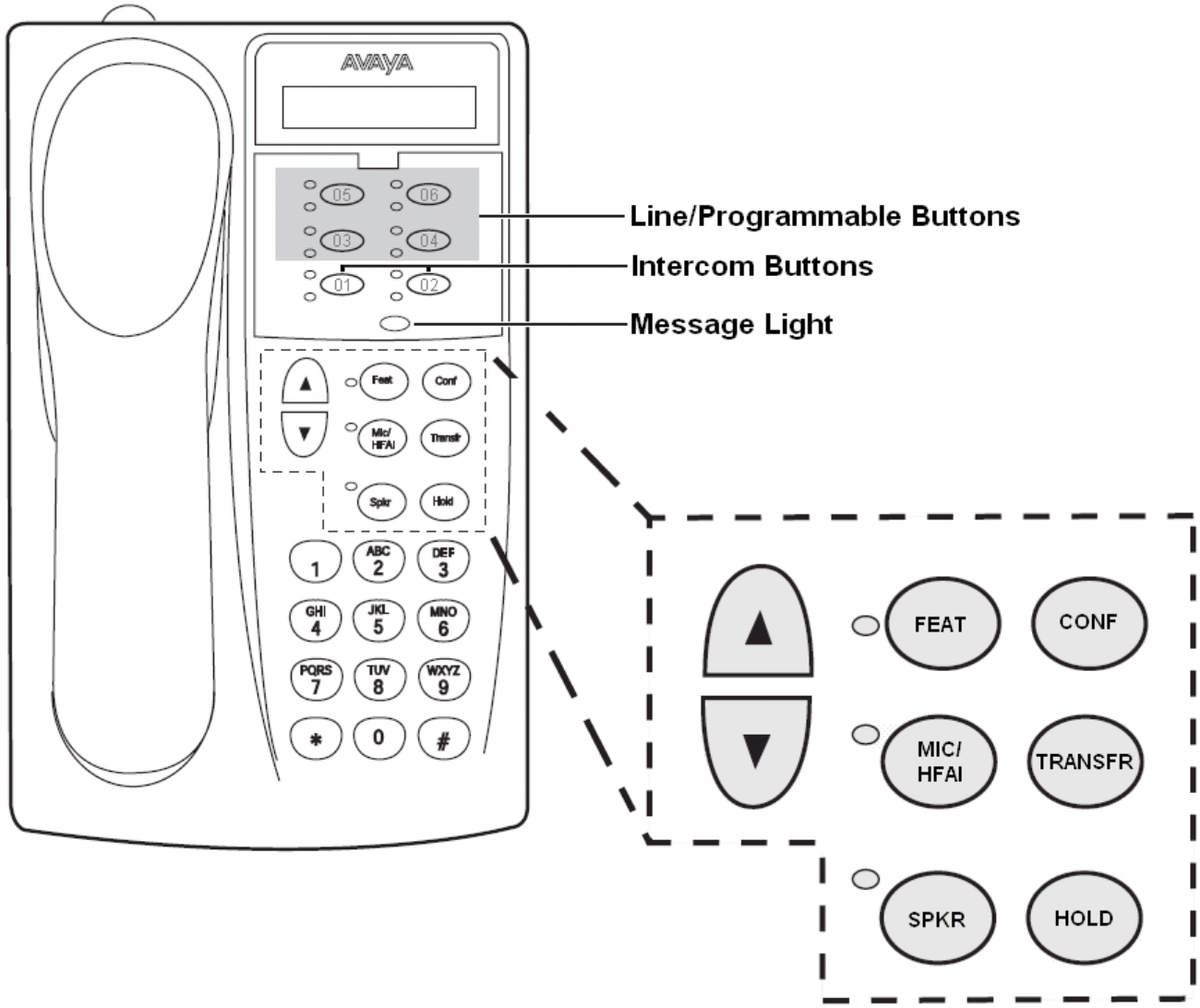
Chapter 1.
ETR Telephones

1. ETR Telephones

The IP Office PARTNER Version supports the ETR Series of Avaya phones. The models supported are the ETR 6D, ETR 18D and ETR 34D phones.

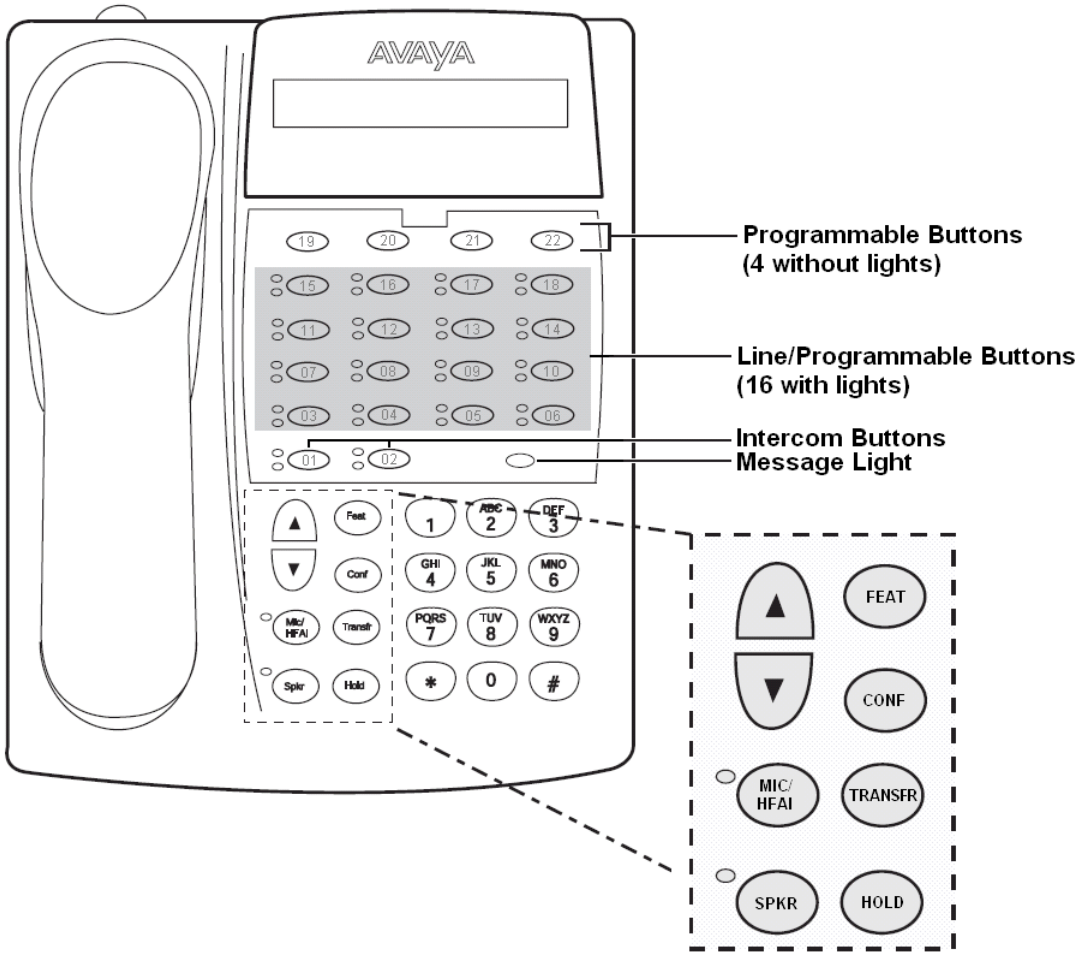
Feature	ETR 6	ETR 6D	ETR 18	ETR 18D	ETR 34D
Programmable buttons with lights	4	4	16	16	32
Programmable buttons without lights	0	0	4	4	4
Intercom Buttons with light	2	2	2	2	2
Display	No	Yes	No	Yes	Yes
Speakerphone	Yes	Yes	Yes	Yes	Yes

ETR 6/ETR 6D



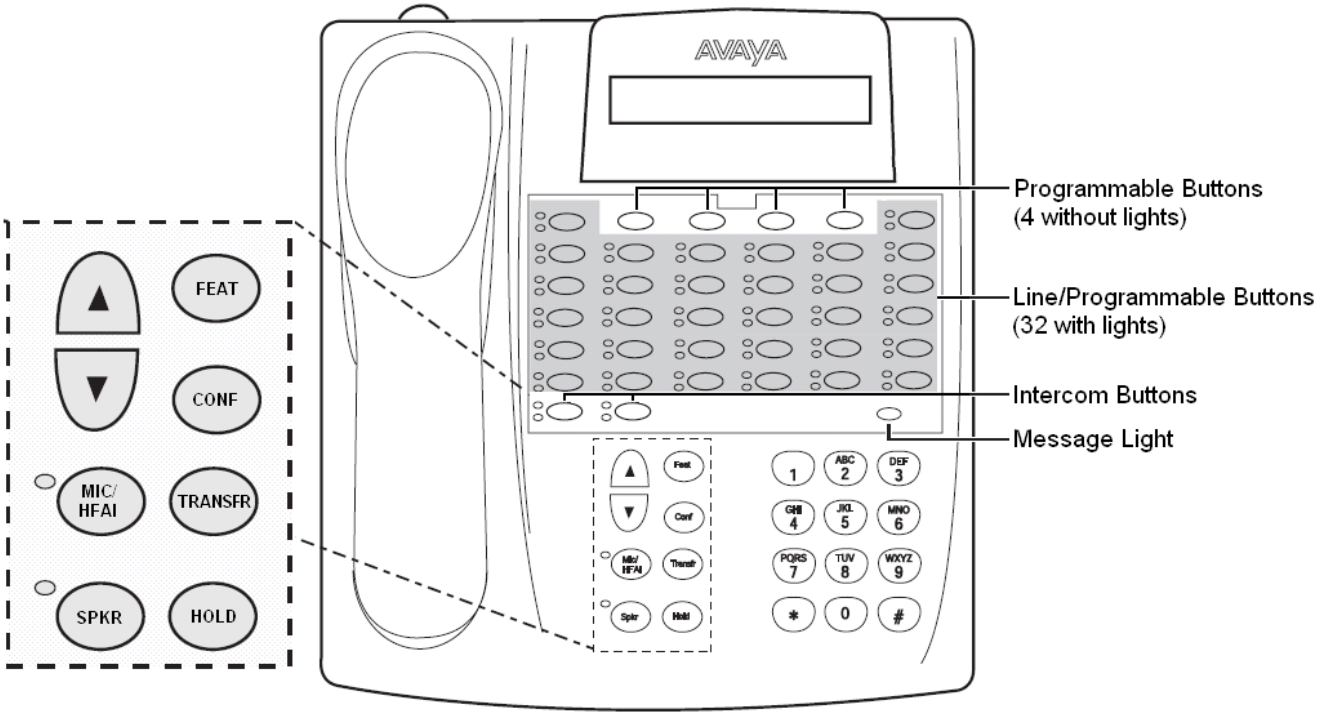
The ETR 6 does not include a display. The ETR 6D includes the display.

ETR 18/ETR 18D



The ETR 18 does not include a display. The ETR 18D includes the display.

ETR 34D



The number of ETR 34D phones supported is limited to a maximum of 4 (with a maximum of 2 per ETR6 base card).

1.1 Fixed Buttons

In addition to the line buttons, the telephones have some or all of the following fixed buttons, which are already imprinted:

- **INTERCOM** (not labeled)
  Press to make or answer a call to or from another extension. If you receive a call on a T1 line with Direct Inward Dialing (DID), and you cannot access that line from a line button, the call will appear on your Intercom button.
- **FEATURE**
  Press to change programmed settings or use system features.
- **CONF**
  Press to add other parties to your call.
- **TRANSFER**
  Press to pass a call to another extension.
- **HOLD**
  Press to put a call on hold.
- **SPKR**
  Press to turn on and off the speaker and microphone (if available), so you can dial and have a conversation without lifting the handset. The light next to this button shows when the speaker is turned on.
- **MIC/HFAI**
  Press to turn the microphone on and off. The light next to this button shows when the microphone is turned on. Leave on to use Hands-Free Answer on Intercom (HFAI) feature.
- **Volume Control Buttons**
  Press ▼ to decrease or ▲ to increase the volume as follows:
  - To adjust ringer volume, press while the telephone is idle or ringing and the handset is in the cradle.
  - To adjust speaker volume, press while listening to a call through the speaker.
  - To adjust handset volume, press while listening through the handset.

1.2 Ringing Patterns

ETR phones use the following ring patterns:

Call Type	Ring Pattern	
Outside Call	ring... ring... ring	
Intercom Call	ring BEEP... ring BEEP... ring BEEP	• If you have a system display telephone, the caller's extension number (and name if programmed) appears on the display.
Recalling Call	ring BEEP BEEP... ring BEEP BEEP... ring BEEP BEEP.	• A transferred call, or an unanswered transferred or parked call that is ringing back at your extension

1.3 Dial Tones

There are two different dial tones when you call with a system telephone:

- Outside dial tone is generated by your local telephone company to indicate that you are connected with an outside line.
- Intercom dial tone is generated by the system to indicate that you are connected with an inside line. You hear this dial tone when you are making an inside or intercom call.

1.4 Light Patterns

Some buttons have a green light and a red light. The meaning of these lights varies depending on whether the button is used to access an outside line or pool, is programmed with a system feature, or is programmed for Auto Dialing an extension number (Intercom Auto Dial button).

The meanings of the various light patterns for each possible button assignment are:

Light Pattern	Line Button	Programmable Button	Intercom / Auto Dial - Intercom Button
On	**Green** - You are using the line. **Red** - Line in use by another extension.	**Green** - Feature is on.	**Red** - Extension is busy.
Off	Line is idle	Feature is off.	Extension is idle.
Flash (long on, long off)	**Green** Flash - A call is ringing at your extension. **Red** Flash - A call is ringing on the line but not at your extension.	A user is entering a a four-digit code to lock or unlock their extension.	–
Alternating Red/Green	Alternating green and red flash appears at both extensions in a joined call.	–	–
Wink (long on, short off)	**Green** Wink - The call is on hold or parked at your extension. **Red** Wink - Call is on hold or parked at another extension. Anyone who has the line can retrieve the call.	–	–
Green Flutter (short on, short off)	–	Caller ID Inspect, Call Log or Absent Msg. is on. Absent Text Message Mgt. is active Call Logs is active	

1.5 Adjusting the Telephone Display

The phone must be idle and the handset must be in its cradle when you adjust the display contrast.

To adjust the display brightness

1. With the extension idle, press *.
2. Use the ▲ up arrow and ▼ down arrow keys to change the display brightness.

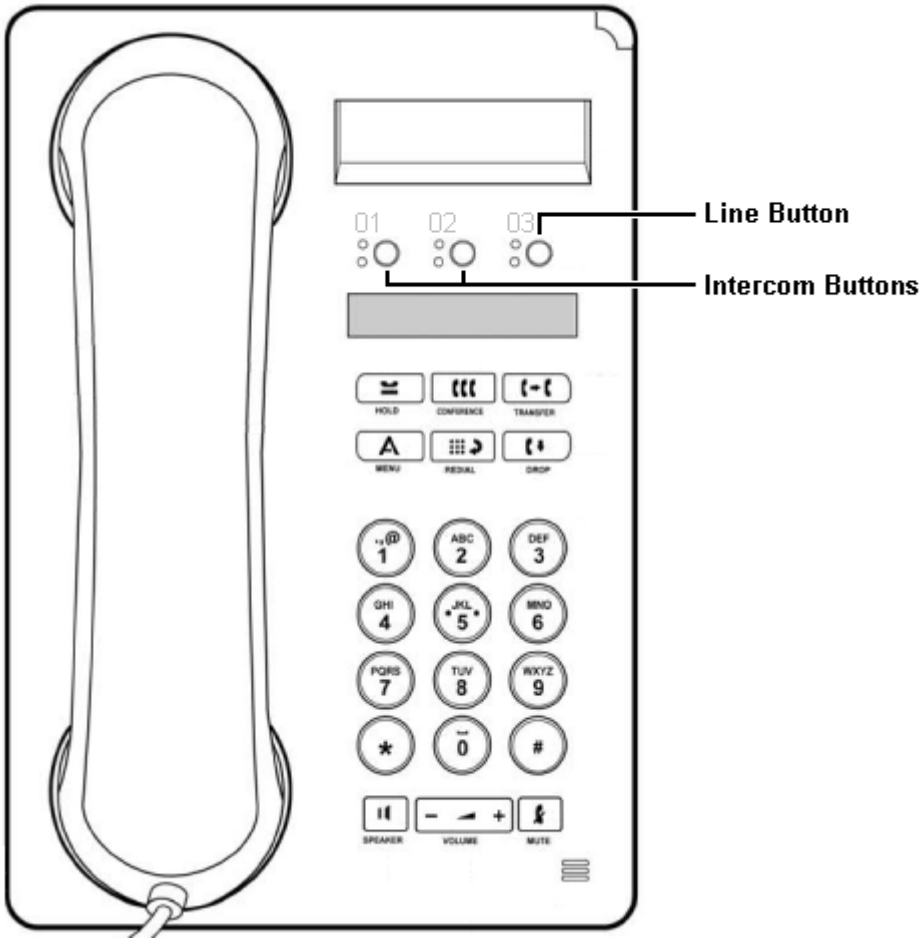
Chapter 2.
1400 Series Phones

2. 1400 Series Phones

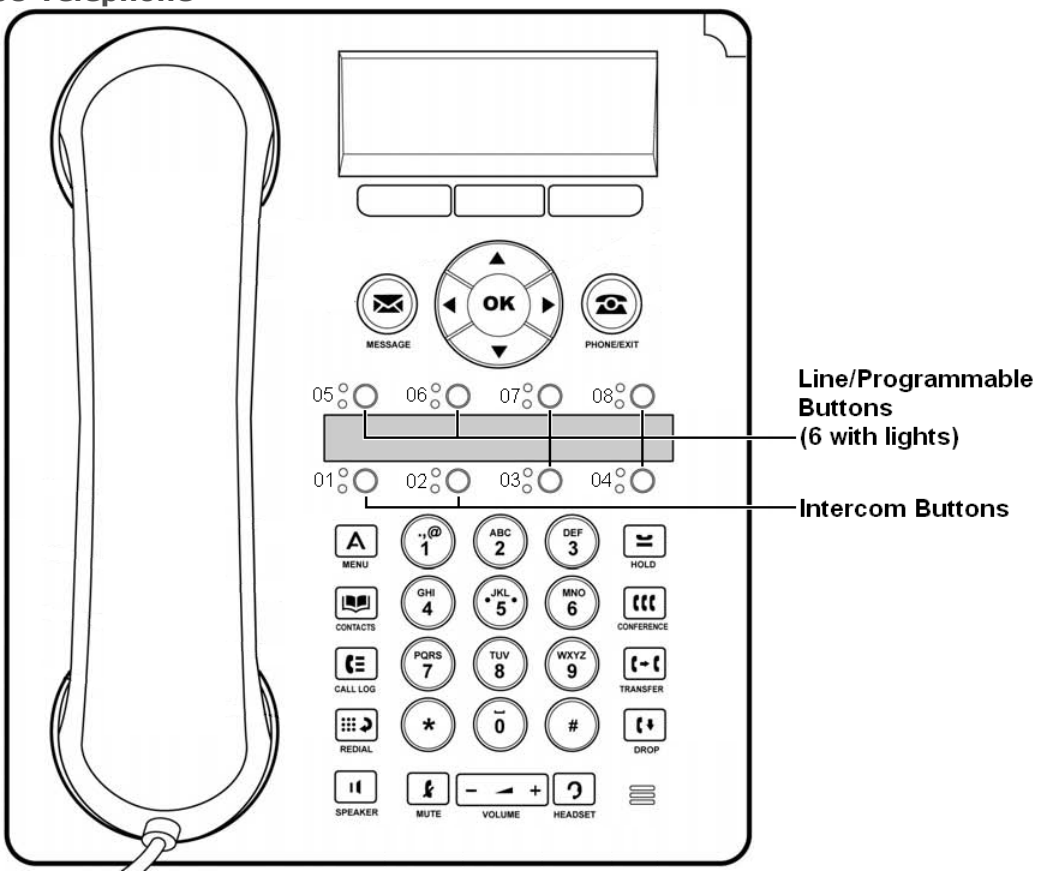
The IP Office PARTNER Version system supports the 1400 Series of Avaya digital telephones. Supported models are the 1403, 1408 and 1416.

Feature	1403	1408	1416
Programmable buttons with lights	1	6	14
Programmable buttons without lights	0	0	0
Intercom Buttons with light	2	2	2
Display	Yes	Yes	Yes
Speakerphone	No	Yes	Yes

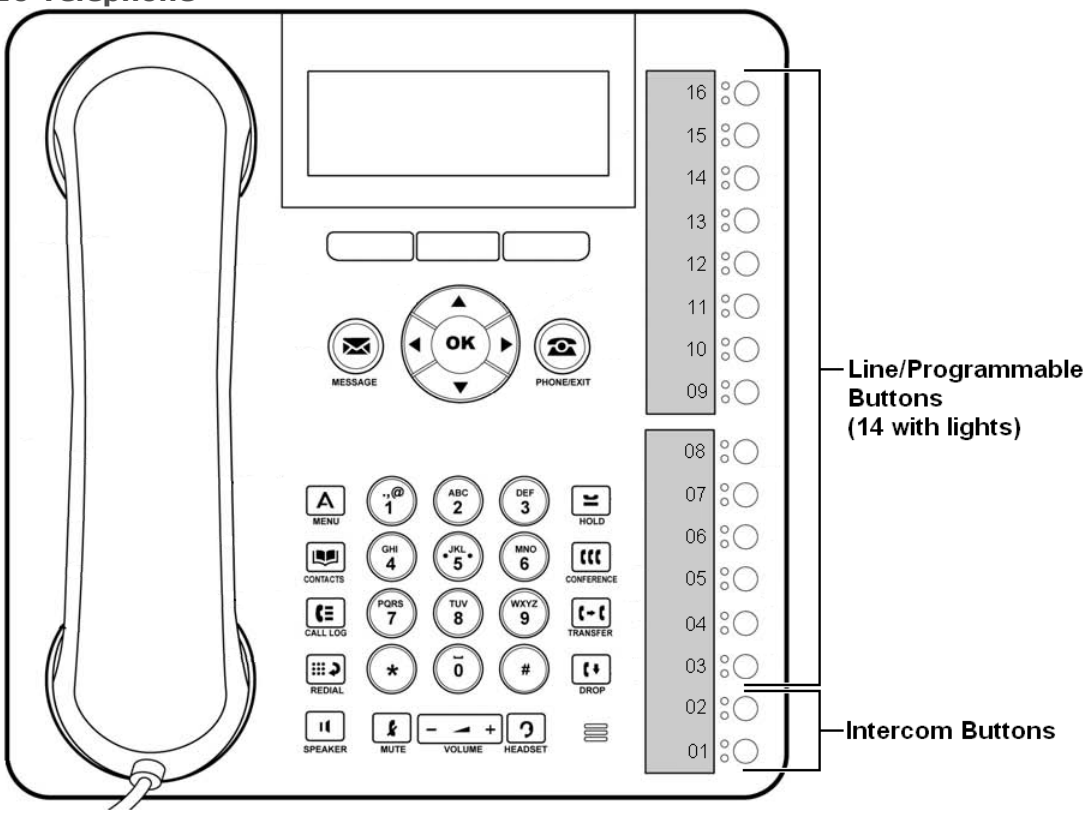
1403 Telephone



1408 Telephone



1416 Telephone



Chapter 3.
Basic Call Handling

3. Basic Call Handling

3.1 Making Calls

You can make a call by dialing an outside telephone number or an extension number.

- If the telephone number is one that is used frequently called it can be stored and dialed as a personal speed dial or using an auto dial button.

To make a call to another extension

1. Pick up the handset and press an idle **INTERCOM** button. The green light next to the button is on steady and you will hear the dial tone.
2. Dial the extension number.
    - On 1400 Series phones, if the other extension doesn't answer press **AutCB** (automatic callback) to have that extension call you after it is next used and then hangup.

To make an external call

1. Pick up the handset. The green light next to the button is on steady and you will hear the dial tone.
2. Dial the telephone number. The dialled number will appear on the display.

Using the last number redial

1400 Series phones users can use the fixed **REDIAL** button on their phone to view details of previous calls and redial those number.

1. Lift the handset.
2. Press **FEATURE 05**. The digits are displayed as they are dialed.

To create a last number redial button (ETR 18D/ETR 34D Phone)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
4. Dial **FEATURE 05**.
5. The current setting of the button will now be set to **Last Number Redial**.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

3.2 Answering Calls

You can answer telephone calls that are ringing your extension or at another extension. If you regularly pick up calls for a specific extension you can program a call pickup 33 button for that specified extension.

To answer a call ringing at your own extension

1. Pick up the handset, you are connected to the incoming call. If more than one line is ringing, you are connected to the line that has been ringing for the longest time.
   - To answer a specific line press the button for that line.
   - On 1400 Series phones, the press **>>** to display additional options.
     - **To VM** can be used to send the ringing call to voicemail immediately.
     - **Ignore** can be used to quieten or suppress the ringer.

To answer a call ringing at another extension (call pickup)

1. Pick up the handset.
2. Press an **INTERCOM** button and dial **6** followed by the two-digit number of the extension at which the call is ringing or parked.

3.3 Using Handsfree

The ETR 6D, ETR 18D, ETR 34D telephones each have a speaker and microphone which you can turn on by pressing **SPKR** . The 1408 and 1416 telephones also each have a speaker and microphone which you can turn on by pressing SPEAKER.

- In addition, on the ETR 6D, ETR 16D and ETR 34D telephones, you can turn just the microphone on and off by pressing **MIC/HFAI**. When the green light next to **MIC/HFAI** is on, the microphone is on.
- The 1403 telephones has a speaker but no microphone. This allows it to hear page calls and hear the progress of a call when making a call. However the handset must be used to speak on a call.

Room acoustics and background noise can affect the proper operation of the speakerphone. To ensure that your speakerphone works effectively, follow these guidelines:

- Avoid placing your telephone in areas with high background noise caused by sources such as motor vehicles, manufacturing equipment, loud voices, radios, printers, copiers, typewriters, other noisy office equipment or heater and air conditioning fans.
- Avoid talking before the other person is finished speaking. When you both talk at the same time, only one person's voice comes through.
- Do not use your speaker to make announcements over a loudspeaker paging system connected to your telephone system.
- When talking, always face your telephone and stay within two feet of it.
- Place your telephone at least six inches (15 cm) away from the edge of your desk.
- If you have difficulty hearing the other party, try increasing the speaker volume. If you have background noise, try turning off the microphone when the party at the other end is speaking and turning it on when you speak. If the difficulty persists, lift your handset to continue the conversation.
- In conference rooms, a separate speakerphone is recommended, since the built-in speaker on a system telephone is designed for individual use.

To make a call without lifting the handset

1. Press **SPEAKER** or **SPKR** to get a dial tone
2. Dial the number, you hear the call ringing. When the other party answers, you can talk without lifting the handset.

To switch modes

- If you are already on a call, you can switch from the handset to the speakerphone by pressing **SPEAKER** or **SPKR** and then hanging up the handset.
- If you are using the speakerphone and want to switch to the handset, lift the handset. The speaker and microphone are turned off.
- On ETR phones, to turn off the microphone when you are using the speaker, press **MIC/HFAI**. This will mute your voice so the other party cannot hear you. On 1400 Series phones to do this press the **MUTE** button.

3.4 Hands-Free Answer on Intercom

When you receive a voice-signaled intercom call, your telephone beeps once to indicate that your speaker has been turned on automatically, and you hear the caller's voice over your telephone's speaker. If you leave your microphone on all the time, you can start talking when you hear the caller, without lifting the handset. This feature is called Hands-Free Answer on Intercom (HFAI).

Any user in the system can make a voice-signaled call to an idle system telephone by pressing an intercom button and * and then dialing an extension number.

You cannot make a voice-signaled call to an extension that has the Cell Phone Connect feature active. (The call will not appear at the extension.)

1. The HFAI feature can be turned on or off only when your telephone is idle. On ETR phones use the HFAI button, on 1400 Series phones use the MUTE button. Muting your voice while you are on a call only turns off the microphone for the duration of the call.
2. If you are already on a call, any additional voice-signaled call to your extension is turned into a normal ringing call instead.

3.5 Adjusting the Volume

While the phone is idle or ringing, you can adjust the ringer volume. When the phone is connected to a call you can adjust the speaker or handset volume.

To adjust the ringer volume

1. Use the ▲ up arrow and ▼ down arrow keys to change the ringer volume.

To adjust the caller volume

The volume that gets adjusted will depend on whether you are using the handset, speakerphone or headset (1408 and 1416 phones only) at the time you use this process.

1. Use the ▲ up arrow and ▼ down arrow keys to change the volume.

3.6 Holding Calls

When a call is on hold you can make and receive other calls on another line.

If a call is left on hold for longer than the specified interval it will recall to the extension that put it on hold.

To place a call on hold

1. During the call press the **HOLD** button or the button on which the call is taking place. The **Green** light next to the button will wink to show that the call is on hold.

To retrieve a call that you put on hold

1. Press the button next to the winking **Green** light. You are reconnected to the call. The green light changes to a steady green light.

To retrieve a call that somebody else put on hold

1. Press the button next to the winking **Red** light. You are reconnected to the call. The **Red** light changes to a steady green light.

3.7 Transferring Calls

Transferring a call lets users "pass" a call from one extension to another. Users can transfer both outside and internal calls to another extension.

To transfer a call

1. While the call is active press the **TRANSFER** button. The call is put on hold and the green light next to the line or intercom button will wink.
2. When you hear the inside dial tone, dial the number to which the call is to be transferred. Then do one of the following:
   - To transfer the call without announcing it (an unsupervised transfer) hang up or press the transfer button again as soon as you hear the extension ringing. The transfer is complete. If the call is not answered it will be returned to your extension. When your extension rings, lift the handset to be reconnected to the caller.
   - To announce the call before completing the transfer (a supervised transfer), wait for the call to be answered. If the called party is willing to accept the call hang up or press the transfer button again to complete the transfer. If no one answers or the call is refused, press the button next to the winking green light to be reconnected to the caller.

3.8 Conferencing Calls

The Conference feature allows you to conference other parties (including yourself) into a call. The system supports multiple conferences of up to 64 parties in total, including up to 2 external analog trunk in each conference.

To create a conference call

1. While active on a call, press the **CONF** or **CONFERENCE** button. The first party is now on hold.
2. When you hear the inside dial tone, dial the telephone number of the second party.
3. When the call is answered press the **CONF** or **CONFERENCE** button again to add the second party to the call.
4. You can now speak to the first and second parties. An alternating **Red**/**Green** Flash appears at any extension connected during a conference call.
5. Repeat step 2 to add more parties.

To use hold during a conference call

If you need to answer or make another call during a conference call you can use the Hold feature. When you put a conference call on hold, the other parties can still talk to each other.

1. Press the **HOLD** button.
2. The **Green** light next to the intercom or line button will wink to show that the call is on hold.
3. To re-join the conference call press the button next to the **Green** light. You will rejoin the conference. An alternating **Red**/**Green** Flash appears next to your intercom or line button to indicate that you are in a conference call.

3.9 Joining Calls

Joining is adding yourself to a call in progress, the same way you do on a home telephone by picking up an extension.

You cannot:	• Join an intercom call or a conference call at anther extension. • Join a call at any extension that has Privacy activated. • Put a joined call on hold.
You can:	• Tell when someone has joined a call of yours when the lights next to the line button change to alternately flashing **Red** and **Green**. • Program Privacy onto a system telephone button to allow or prevent others from joining your calls. • Join a call that is being answered by the voice messaging system. When you join the call, the voice messaging system disconnects automatically so you can speak to the caller. • Use Direct Line Pickup-Active Line to join a call on that line if a line is not assigned to your extension and access to that line is not restricted for that extension.

To join a call

A steady red light next to a line button indicates that a call is in progress on that line.

1. Press the line button next the the steady red light and lift the handset. Alternatively press **INTERCOM** and dial **68** followed by the two-digit line number.
2. The red and green lights alternately flash. You are now joined with the call.

Chapter 4.
Advanced Features

4. Advanced Features
4.1 Feature and Intercom Codes

Intercom Codes
The following features are accessed by pressing an idle intercom button. The two intercom buttons are the programmable buttons at the bottom.

Feature	Dial	Summary
Call Pickup	Intercom 6 <*Extension Number*>	Answer the longest waiting call ringing at an extension.
Group Pickup	Intercom 66 <*Pickup Group*>	Answer the longest waiting call ringing any extension that is a member of the pickup group (1 to 4) selected.
Direct Line Pickup —Idle Line	Intercom 8 <*Line Number*>	Seize the specified line if it is idle and then make a call using that line.
Direct Line Pickup —Active Line	Intercom 68 <*Line Number*>	Answer or seize the call on the specified line.
Loudspeaker Paging	Intercom 70	Page the loudspeaker device attached to the system.
Simultaneous Paging	Intercom *70	Page both the loudspeaker device attached to the system and the extensions in calling group 71.
Group Calling —Ring	Intercom 7 <*Calling Group*>	Call the available extensions in one of the calling groups (1 to 4).
Group Calling —Page	Intercom *7 <*Calling Group*>	Page the available extensions in one of the calling groups (1 to 4).
Group Hunting —Ring	Intercom 77 <*Hunt Group*>	Call the available extensions in one of the hunt groups (1 to 6).
Group Hunting —Voice Signal	Intercom *77 <*Hunt Group*>	Page the first available extension in one of the hunt groups (1 to 6).

Using Feature Codes

There are a wide range of features that can be used with your extension. They are accessed by pressing FEATURE and dialing the required feature code. Depending on the feature be used this is done either when the phone is idle or during a call.

- On ETR phones, the **FEATURE** button is used to start dialing a feature code.
- On 1400 Series phones, select **Feature** on the display to start dialing a feature code. During a call you may need to select **>>** first to display the Feature option.
- On analog phones, at dial tone dial # followed by the feature code. To do this during a call you need to press recall first to get to dial tone.

The table below lists some of the features. Note that some feature may have restrictions on which extensions and or types of phone can us the feature.

Feature	Dial	Summary
Do Not Disturb On/Off 34	FEATURE 01	Switch your do not disturb on/off.
Recall	FEATURE 03	Send a recall or hook switch flash signal during a call.
Save Number Redial	FEATURE 04	Save the number dialed during a call. Then redial that number when idle.
Last Number Redial	FEATURE 05	Redial the last dialed number.
Conference Drop	FEATURE 06	Drop the last added party from a conference.
Privacy On/Off	FEATURE 07	Turn privacy on/off during a call.
Call Forwarding 26	FEATURE 11 *<Extension Number>*	Forward your calls to another extension.
Remote Call Forwarding 26	FEATURE 11 *<Personal Speed Dial>*	Forward your calls to an external number by selecting one of your personal speed dials as the destination.
Cell Phone Connect 26	FEATURE 11 * *<Personal Speed Dial>*	Similar to remote call forwarding but with your calls ringing at both your extension and the external number.
Account Code Entry	FEATURE 12	Enter and exit account code entry mode during a call.
Voice Mailbox Transfer 35	FEATURE 14 *<Extension Number>*	Transfer your current call to an extension's mailbox.
VMS Cover On/Off 44	FEATURE 15	Turn your voicemail cover on/off.
Caller ID Name Display	FEATURE 16	Toggle the display between name and number information.
Caller ID Inspect	FEATURE 17	See the call details of a call on another line button without interrupting your own current call.
Call Coverage 27	FEATURE 20 *<Own Extension>* *<Covering Extension>*	Enable call coverage from your extension to another extension. To disable call coverage, enter your own extension number twice.
Lock/Unlock 30	FEATURE 21	Lock or unlock your extension.
Absent Text Message 25	FEATURE 28	Set/clear an absent text message.
Contact Closure 1	FEATURE 41	Operate the system's first contact closure switch.
Contact Closure 2	FEATURE 42	Operate the system's second contact closure switch.
System Release	FEATURE 59	Display the software version of the system.

4.2 Naming Your Extension

You can assign a name to your extension, up to 15 characters long. The name is then displayed on the phone and also on other extensions when you make or receive calls.

To change your extension name (ETR 18D/34D)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press **Intercom 1**.
4. Enter the extension name.
   - Enter a character by pressing the indicated button until that character is displayed. If you pause more than 1 second after press a button, the cursor will move onto the next space.

1	1!"$%&'()+,-./		**2**	2abcABC		**3**	3defDEF
4	4ghiGHI		**5**	5jklJKL		**6**	6mnoMNO
7	7pqrsPQRS		**8**	8tuvTUV		**9**	9wxyzWXYZ
*****	*:;<=>?@[\]^_`		**0**	0 Space		**#**	#

   - Do not use punctuation characters such as #, ?, /, -, _ and , in the name. Start the name with an alphabetic character. Note that the name is case sensitive and must be unique.
- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.
- To remove the current name, press the **MIC/HFAI** key.

To change your extension name (1408/1416 Phone)

1. At the extension press **Admin**.
2. Use the ▲ up or down ▼ arrow buttons to scroll the display to **Telephone Programming**. When displayed, press **Select**.
3. Use the ▲ up or down ▼ arrow buttons to scroll the display to **Extension Name**. When displayed, press **Select**.
4. The current setting is displayed.
5. To enter a new name dial the characters using the dial pad buttons. When finished press **Enter**.
   - Enter a character by pressing the indicated button until that character is displayed. If you pause more than 1 second after press a button, the cursor will move onto the next space.

1	1!"$%&'()+,-./		**2**	2abcABC		**3**	3defDEF
4	4ghiGHI		**5**	5jklJKL		**6**	6mnoMNO
7	7pqrsPQRS		**8**	8tuvTUV		**9**	9wxyzWXYZ
*****	*:;<=>?@[\]^_`		**0**	0 Space		**#**	#

- Do not use punctuation characters such as #, ?, /, -, _ and , in the name. Start the name with an alphabetic character. Note that the name is case sensitive and must be unique.

3. To remove the current name press **Clear**.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

4.3 Absent Text Messages

The absent text message feature assists internal callers by displaying a message on their telephone. When another extension calls your extension, your active absent text message appears on the caller's display.

This feature is only supported on ETR 18D, ETR 34D, 1408 and 1416 telephones. It is not supported on ETR 6D and 1403 telephones.

To set and clear an absent text message you need to assign the feature to a programmable button with lights. The button can then be used to activate, select and deactivate the message.

To create an absent message button (ETR 18D/ETR 34D Phone)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
3. Dial **FEATURE 28**.
4. The current setting of the button will now be set to **Absent Message**.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create an absent message button (1408/1416 Phone)

1. At the extension press **Admin**.
2. Press the programmable button you want to change. Alternatively:
    - Use the ▲ up or down ▼ arrows to scroll to **Telephone Programming**. Press **Select**.
    - At the **Button:** prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press **Program** and either dial **#28** or use the ▲ up or down ▼ arrow buttons to scroll the display to **Absent Message** and press **Select**.
5. The current setting of the button will now be set to **Absent Message**.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

To activate an absent text message

1. Press the absent text message button. The first absent text message is displayed.
2. Scroll through the default messages by pressing the button beneath the word **Next** until the required message is displayed.

• Back soon • Do not disturb • Out to lunch • Away from desk	• Please Call • At lunch until • Don't disturb until • With cust. until	• Back tomorrow • On Vacation • At home • Be right back	• On Holiday Until • Meeting until • With visitors until

3. Press the button beneath the word **Activ** to select the message shown on the display.
4. To add additional text or edit the existing text press **More** and then **Edit**.
5. To complete the process press the absent text message button again.

To deactivate the absent text message

1. Press the absent text message button. The green light flutters and the active absent text message is displayed. W/* in pos 1.
2. Press the button beneath the word **Dactiv**.
3. To complete the process press the absent text message button again.

4.4 Forwarding Calls

All external, internal and transferred calls directed to your extension can be diverted to a different internal extension number. You can enter the destination extension telephone number and select when calls are redirected using a programmed button.

Before you can automatically forward calls you need to assign the feature to a button with lights. The button can then be used to turn call forwarding on and off as required.

- Selected users may also be able to do remote call forwarding where they forward their calls to an external number. If that is the case, consult your system administrator, you can use your personal speed dials 31 as the forwarding destination.
- Some users may also be able to use cell phone connect, again consult your system administrator. With cell phone connect the call will ring at both your extension and at the remote call forwarding destination. This is sometimes called mobile twinning.
- DID calls can be forwarded.
- You receive a slow interrupted intercom dialling tone when call forwarding is active.

To create a call forwarding button (ETR 18D/ETR 34D Phone)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
3. Dial **FEATURE 11**.
4. At the **Call Coverage Orig:** prompt enter the extension number for which the button is being programmed.
5. At the **Call Coverage Dest:** prompt enter the destination number for the call coverage calls.
    - To forward to an external number, enter the personal speed dial (80 to 99) that contains the required external number.
    - To forward using cell phone connect/mobile twinning, enter * followed by the personal speed dial (80 to 99) that contains the required external number.
6. The current setting of the button will now be set to **Call Forward O** <*covered extension*> **D** <*destination extension*>.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create a call forwarding button (1408/1416 Phone)

1. At the extension press **Admin**.
2. Press the programmable button you want to change. Alternatively:
    - Use the ▲ up or down ▼ arrows to scroll to **Telephone Programming**. Press **Select**.
    - At the **Button:** prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press **Program** and either dial **#11** or use the ▲ up or down ▼ arrow buttons to scroll the display to **Call Forwarding** and press **Select**.
5. At the **Call Coverage Orig:** prompt enter the extension number for which the button is being programmed.
6. At the **Call Coverage Dest:** prompt enter the destination extension number for the call coverage calls.
    - To forward to an external number, enter the personal speed dial (80 to 99) that contains the required external number.
    - To forward using cell phone connect/mobile twinning, enter * followed by the personal speed dial (80 to 99) that contains the required external number.
4. The current setting of the button will now be set to **Call Forward O** <*covered extension*> **D** <*destination extension*>.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

4.5 Call Coverage

Call coverage is used to redirect all intercom, transferred, DID and outside calls on lines assigned to your, or to another extension. When call coverage is in use, covered calls are routed to the covering extension after a specified number of rings set by the system administrator.

- Intercom, transferred, DID, and outside calls on lines assigned ownership can be covered.
- Group calls, forwarded calls, transfer-return calls, voice-signaled calls, Voice Interrupt On Busy calls, and calls to doorphone alert extensions are not covered.
- A single extension can cover multiple extensions; however, an extension programmed for call coverage can have only one covering extension. Only one call coverage button can be programmed per extension.
- If you activate call coverage at your extension, you still can intercept an outside call rerouted by coverage by pressing the outside line button that has the call appearance.
- You can program call coverage on a programmable button. Use a button with lights if you want a visual indication when your calls are being covered. When the green light is on, your calls are being covered; when the green light is off, call coverage is not active.
- If call coverage and do not disturb are already on, covered calls are routed immediately to the covered extension without ringing the covered extension. Similarly, if Call Coverage is on and a call begins to ring, you can turn on Do Not Disturb 34 to send that call immediately for coverage.
- If an extension has Call Coverage and VMS Cover 44 active, calls ring at the covering extension.
  - If the covering extension does not answer, the call is routed to the voice mailbox of the extension that activated Call Coverage after the specified number of VMS Cover Rings. If the covering extension has Do Not Disturb 34 active, the call is routed immediately to the voice mailbox of the extension that activated Call Coverage.
- If an extension has Call Coverage active without voice mail coverage, covered calls ring at the covering extension for the specified number of Call Coverage Rings. Outside and intercom calls continue to ring at the covering extension until the call is answered or the caller hangs up.
- For transferred calls, if the covering extension does not answer, the call goes to the transfer return extension after the specified number of Transfer Return Rings (if VMS cover is not active).
- If an extension has Call Coverage and Call Forwarding active, calls are routed to the Call Forwarding destination extension (Call Forwarding takes precedence).

To send calls for coverage manually

1. Press **FEATURE 20**.
2. Dial the extension number of the covering extension.

To remove call coverage manually

1. Press **FEATURE 20**.
2. Dial your extension number again.

To use a call coverage button

1. Press the programmed button. When on, if programmed on a button with a light, the button's green light will be on.

To create a call coverage button (ETR 18D/ETR 34D Phone)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
4. Dial **FEATURE 20**.
5. At the **Call Coverage Orig:** prompt enter the extension number for which the button is being programmed.
6. At the **Call Coverage Dest:** prompt enter the destination extension number for the call coverage calls.
7. The current setting of the button will now be set to **Call Coverage O** <*covered extension*> **D** <*destination extension*>.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create a call coverage button (1408/1416 Phone)

1. At the extension press **Admin**.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to **Telephone Programming**. Press **Select**.
   - At the **Button:** prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press **Program** and either dial **#20** or use the ▲ up or down ▼ arrow buttons to scroll the display to **Call Coverage** and press **Select**.
5. At the **Call Coverage Orig:** prompt enter the extension number for which the button is being programmed.
6. At the **Call Coverage Dest:** prompt enter the destination extension number for the call coverage calls.
7. The current setting of the button will now be set to **Call Coverage O** <*covered extension*> **D** <*destination extension*>.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

4.6 Auto Dialing

Auto dialing uses numbers stored under one of the phone's programmable buttons. Whenever a number need to be dialed, pressing the button will dial the stored number.

To use an auto dial button

1. At dial tone or whenever you want to dial a number, press the programmed auto dial button.
2. The stored number is dialed.

To create an auto dial button (ETR 18D/ETR 34D Phone)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
4. To create an auto dial button to store an extension number press **Intercom 1**. For a button to store any other type of number press **Intercom 2**.
5. Enter the number for calls made using the button. The number can include ***** and **#** and the following special characters: (Intercom 2 type only)

Function	Press to insert	Character	Description
Pause	**HOLD**	**P**	Inserts a 1.5 second pause.
Transfer	**SPEAKER**	**R**	Send a hook-switch flash signal.
Stop	**CONFERENCE**	**S**	Stop dialing.

6. The current setting of the button will now be AD-I (auto dial intercom) or **AD-O** (auto dial other) followed by the stored number.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.
- To clear, press the **MIC/HFAI** key.

To create an auto dial - other button (1408/1416 Phone)

1. At the extension press **Admin**.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to **Telephone Programming**. Press **Select**.
   - At the **Button:** prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
3. Press **Program** and either press **Intercom 2** or use the ▲ up or down ▼ arrow buttons to scroll the display to **Auto Dial - Other** and press **Select**.
4. At the **AD-O:** prompt enter the number for calls made using the button. The number can include ***** and **#** and the following special characters:

Function	Press to insert	Character	Description
Pause	**HOLD**	**P**	Inserts a 1.5 second pause.
Transfer	**SPEAKER**	**R**	Send a hook-switch flash signal.
Stop	**CONFERENCE**	**S**	Stop dialing.

5. The current setting of the button will now be **AD-O** followed by the stored number.
6. To remove the current setting press **Clear**.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

4.7 Locking Your Extension

You can use the lock feature to prevent unauthorized people from making outside calls from your extension while you are away from the extension.

To lock your extension

1. Press **FEATURE 21**.
2. Dial a four digit code using the 0 to 9 numbers .
3. Redial the four digit code.

To unlock your extension

1. Press **FEATURE 21**.
2. Dial the four digit code you used to lock the extension.

4.8 System Speed Dials

The system administrator can program up to 100 frequently used number as system speed dial numbers 600 to 699. Any user in the system can use a system speed dial by pressing **FEATURE** and dialing the three digit code of the system speed dial required.

- Except in special cases which the system administrator can configure, system speed dials do not override any dialing restrictions that apply to an extension.
- 1408 and 1416 phone users can view and use system speed dials through the phone's **CONTACTS** 50 menu. Extensions 10 and 11 can also edit the system speed dials through the menu.

To use a system speed dial

1. At dial tone or whenever you want to dial a number, press **FEATURE** and dial the three digit system speed dial code between 600 and 699.
2. The stored number is dialed.

4.9 Personal Speed Dials

You can create up to 20 personal speed dial codes, 80 to 99, to store frequently dialed numbers. The numbers can be quickly dialed by pressing **FEATURE** and the two-digit code for that personal speed dial.

The personal speed dial numbers programmed for a particular extension can only be used at that extension.

- If the system is connected to a PBX or Centrex system and a dial-out code (usually 9) is needed to place calls outside the PBX or Centrex system, include the dial-out code in Speed Dial numbers that must dial out of the PBX or Centrex system.
- Personal speed dials do not override any dialing restrictions that apply to an extension.
- 1408 and 1416 phone users can view, use and edit their personal speed dials through the phone's **CONTACTS** 50 menu.

To use a personal speed dial

1. At dial tone or whenever you want to dial a number, press **FEATURE** and dial the two digit personal speed dial code between 80 and 99.
2. The stored number is dialed.

To edit personal speed dials (ETR 18D/34D)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press **Feature** and the speed dial number to be programmed which must be between 80 and 99.
4. The current setting of the speed dial entry is displayed.
5. Enter the external number. The number can be up to 28 characters in length. The following keys can be used to enter special dialing commands:

Function	Press to insert	Character	Description
Pause	**HOLD**	**P**	Inserts a 1.5 second pause.
Transfer	**SPEAKER**	**R**	Send a hook-switch flash signal.
Stop	**CONFERENCE**	**S**	Stop dialing.

6. To remove the existing number press **MIC/HFAI**.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To edit personal speed dials (1408/1416 Phone)

1. At the extension, press **Admin**.
2. Use the ▲ up or down ▼ arrow buttons to scroll the display to **Telephone Programming**. When displayed, press **Select**.
3. Use the ▲ up or down ▼ arrow buttons to scroll the display to **Personal Speed Dial**. When displayed, press **Select**.
4. At the **Code:** prompt enter between 80 and 99 to select the speed dial entry that you want to edit.
5. The current setting of the speed dial entry is displayed.
6. Enter the external number and press **Enter**. The number can be up to 28 characters in length. Press **Clear** to remove any existing number. The following keys can be used to enter special dialing commands:

Function	Press to insert	Character	Description
Pause	**HOLD**	**P**	Inserts a 1.5 second pause.
Transfer	**SPEAKER**	**R**	Send a hook-switch flash signal.
Stop	**CONFERENCE**	**S**	Stop dialing.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

4.10 Account Codes

The Account Code Entry feature is used to enter an account code up to 6 digit for any outside call, incoming or outgoing. An account code is typically used to identify a department, project, or client for charge-back or tracking purposes. An account code can be either forced or optional. When an extension is set up with the forced account code feature, the user must enter an account code before they can dial outside calls

To create an account code entry button (ETR 18D/ETR 34D Phone)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
3. Dial **FEATURE 12**.
4. The current setting of the button will now be set to **Account Code Entry**.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To enter an account code using an account code entry button

1. After lifting the handset or while already active on an outside call, press the programmed **Account Code Entry** button. If the button has lights, the green light turns on.
2. Enter an account code by dialing the account code using the telephone's dial pad. You can also use a system or person speed dial number programmed with the account code or press an Auto Dial button programmed with the account code.
3. Continue with the call.

To enter an account code without using a preprogrammed button

1. After lifting the handset (or while already active on an outside call), press **FEATURE** and dial **12**.
2. Enter an account code by dialing the account code using the telephone's dial pad.
3. Continue with the call.

To create an account code entry button (ETR 18D/ETR 34D Phone)

4. At the phone press **Feature 00**.
5. **Program Extension:** is shown on the display.
6. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
4. Dial **FEATURE 12**.
5. The current setting of the button will now be set to **Account Code Entry**.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create an account code entry button (1408/1416 Phone)

1. At the extension press **Admin**.
2. Press the programmable button you want to change. Alternatively:
    - Use the ▲ up or down ▼ arrows to scroll to **Telephone Programming**. Press **Select**.
    - At the **Button:** prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press **Program** and either dial **#12** or use the ▲ up or down ▼ arrow buttons to scroll the display to **Account Code Entry** and press **Select**.
5. The current setting of the button will now be set to **Account Code Entry**.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

4.11 Parking Calls

Use this feature to place a call on a special type of hold where it can be retrieved from any extension in the system.

- You should park only one call at a time to ensure that you know which caller you are talking to when you retrieve the parked call.
- If you frequently park calls and you have a system telephone, program your extension number on an Auto Dial button, so you can park a call simply by pressing that button during the park process. See the section on Auto Dialing 29.

To park a call

1. While on a call, press **TRANSFER** and and dial your own two-digit extension number.
2. Hang up. If the call is not picked up within three minutes, it rings back at your extension.

To retrieve a parked call

1. Press an intercom button and **6** followed by the extension number of the extension that parked the call.

4.12 Call Pickup

You can use this feature to answer any intercom, outside, or transferred call ringing at another specified extension. This feature is useful for office colleagues who agree to answer each other's calls.

To create an call pickup button (ETR 18D/ETR 34D Phone)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
4. Dial **6** followed by the target extension number.
5. The current setting of the button will now be **Call Pickup** followed by the target extension number.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create an call pickup button (1408/1416 Phone)

1. At the extension press **Admin**.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to **Telephone Programming**. Press **Select**.
   - At the **Button:** prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press **Program** and either press **Intercom 1** or use the ▲ up or down ▼ arrow buttons to scroll the display to **Call Pickup** and press **Select**.
5. At the **Endpoint:** prompt enter **6** followed by the target extension.
6. The current setting of the button will now be **Call Pickup** followed by the target extension number.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

To use a call pickup button

1. Press the **Call Pickup** programmed button for the specified extension number. You are connected to the call that was ringing the specified extension.

4.13 Do Not Disturb

Use this feature to be able to press a programmed button to prevent incoming calls for the extension from ringing (lights may still flash). You can still use the extension to make calls or answer calls that are on your extension (for example, line appearance calls).

- You need to program a button with lights. When the Do Not Disturb feature is on, the light is also on, indicating that the telephone will not ring.
- Use Do Not Disturb when you do not want the auto attendant or the voice messaging system to transfer calls to you.
- Use Do Not Disturb if you are assigned to a Hunt Group and you leave your desk, so calls to the Hunt Group will skip your extension and ring immediately at the next available extension in the group.
- To avoid missing calls when Do Not Disturb is not needed, turn it off.
- Unanswered calls that are transferred from an extension with Do Not Disturb active, ring at that extension if they transfer return.
- Users with VMS Cover 44 turned on can activate Do Not Disturb to send all calls immediately to their voice mailbox.
- Users with Call Coverage 27 turned on can activate Do Not Disturb to send all calls immediately to the covering extension.

- You receive a slow interrupted intercom dialling tone when Do Not Disturb is active.

To manually switch do not disturb on/off

1. Dial **FEATURE 01**.

To create a do not disturb button (ETR 18D/ETR 34D Phone)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
4. Dial **Feature 01**.
5. The current setting of the button will now be set to **Do Not Disturb**.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create a do not disturb button (1408/1416 Phone)

1. At the extension press **Admin**.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to **Telephone Programming**. Press **Select**.
   - At the **Button:** prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
4. Press **Program** and either dial **#01** or use the ▲ up or down ▼ arrow buttons to scroll the display to **Do Not Disturb** and press **Select**.
5. The current setting of the button will now be set to **Do Not Disturb**.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

4.14 Voice Mailbox Transfer

You can transfer a caller to directly to an extension's voice mailbox for the caller to leave a message without first ringing the extension. This feature is useful when you know that the extension user is not present and has not set do not disturb.

You can program a voice mailbox transfer button to transfer a caller directly to a voice mailbox by pressing the button and then dialing the mailbox subscriber's extension number.

To transfer a caller to an extensions mailbox

1. During the call press FEATURE 14 or press a **Voice Mailbox Transfer** button if the extension has one programmed.
2. Dial the two digit extension number of the extension for which the caller wants to leave a message. The caller is routed to the mailbox and hears the recorded greeting for that mailbox.
3. Hang up.

To create a voice mailbox transfer button (ETR 18D/ETR 34D Phone)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
4. Dial **FEATURE 14**.
5. The current setting of the button will now be set to **Voice Mailbox Transfer**.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create a voice mailbox transfer button (1408/1416 Phone)

1. At the extension press **Admin**.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to **Telephone Programming**. Press **Select**.
   - At the **Button:** prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
3. Press **Program** and either dial **#14** or use the ▲ up or down ▼ arrow buttons to scroll the display to **Voice Mailbox Transfer** and press **Select**.
4. The current setting of the button will now be set to **Voice Mailbox Transfer**.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

Chapter 5.
Using Voicemail

5. Using Voicemail

Each extension on the system has a voicemail mailbox by default. Except for special cases, for example the extensions connected to the fax machine and loudspeaker, the mailboxes are used when the extension has calls it does not answer within a set time (by default 15 seconds though this can be adjusted for each extension by the system administrator).

In addition to accessing your mailbox 39 and listening to your messages 40, you can perform a range of other actions:

- **Record Your Name** 41
  Your can replace the extension number played to callers with a recording of your name.
- **Set an Access Code** 42
  You can set an access code that must be entered whenever you try to access your mailbox.
- **Record a Greeting** 43
  You can replace the default greeting asking a caller to you mailbox to leave a message with your own recorded greeting.
- **Switch Voicemail Cover On/Off** 44
  You can select whether voicemail should be used to cover calls ringing at your extension.
- **Forward a Message** 45
  You can forward a message to another extension or extensions. You can also add you own comments to the message.
- **Call a Message Sender** 45
  If the message includes the caller ID, you can initiate a call back to the message sender.
- **Voicemail Email** 46
  You can use email to receive notification of a new voicemail message.
- **Visual Voice** 47
  1408 and 1416 phone users can access their mailbox using a series of menus on the phone's display.

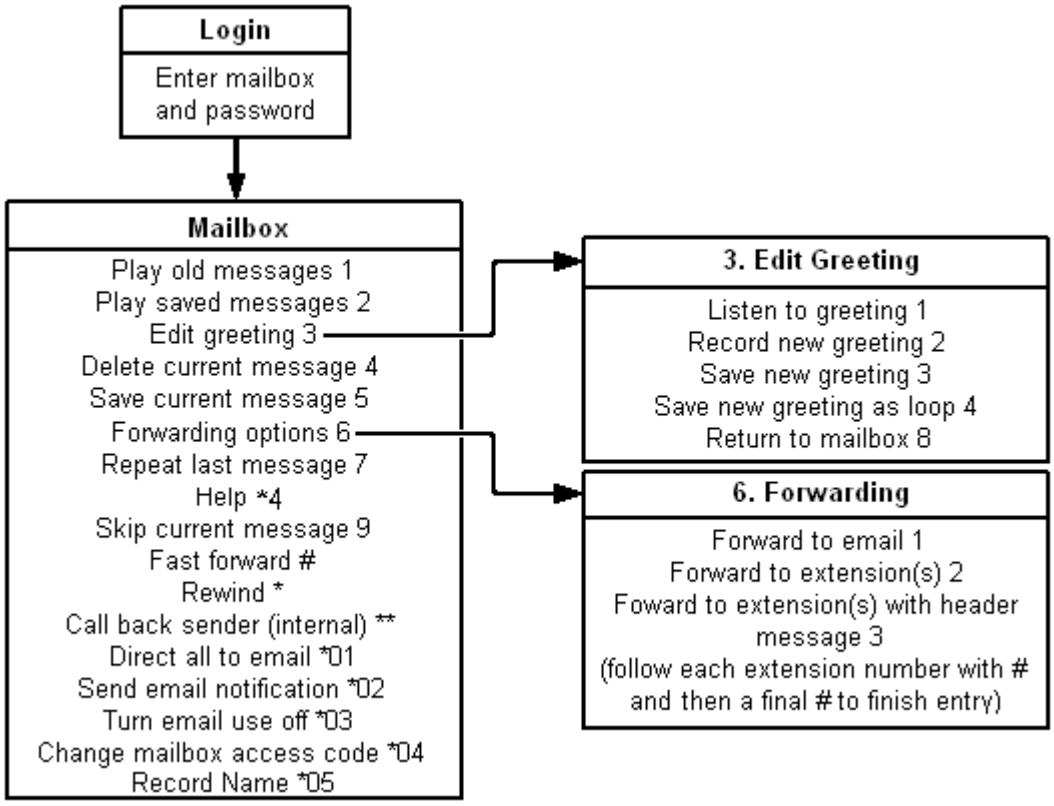
5.1 Accessing Your Mailbox

Your system administrator can also configure other methods of access including access to your mailbox from other phones.

- On 1408 and 1416 phones, you can access your mailbox using Visual Voice 47.

Accessing Your Mailbox

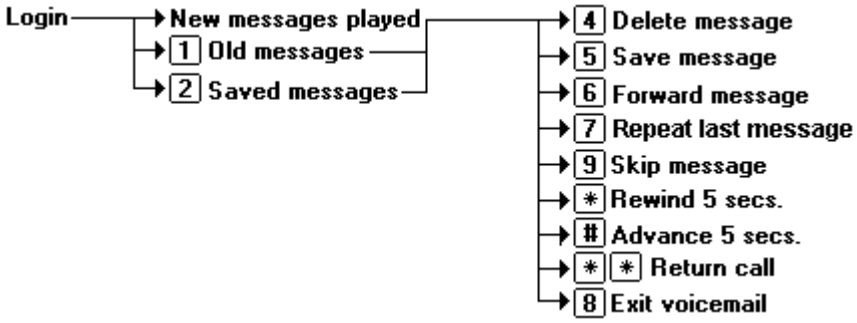
1. Press the **Intercom 1** or **Intercom 2** button and dial **777**.
2. If your mailbox has an access code 42 set, you will be prompted to enter it. Enter your access code.
3. You will hear a prompt telling you how many messages you have. If you have any new messages the voicemail system will start playing your new messages.
4. You can use the controls indicated below to manage your mailbox and messages.


Login
Enter mailbox and password
Mailbox
Play old messages 1
Play saved messages 2
Edit greeting 3
Delete current message 4
Save current message 5
Forwarding options 6
Repeat last message 7
Help *4
Skip current message 9
Fast forward #
Rewind *
Call back sender (internal) **
Direct all to email *01
Send email notification *02
Turn email use off *03
Change mailbox access code *04
Record Name *05
3. Edit Greeting
Listen to greeting 1
Record new greeting 2
Save new greeting 3
Save new greeting as loop 4
Return to mailbox 8
6. Forwarding
Forward to email 1
Forward to extension(s) 2
Foward to extension(s) with header message 3
(follow each extension number with # and then a final # to finish entry)

IMPORTANT
Once a new message has been listened to, it is marked as 'old' and is automatically deleted after 24 hours. If you do not want the message deleted, you must mark it as 'saved' by pressing **5** while listening to the message.

5.2 Listening to Your Messages

When you log in to your mailbox you are automatically played any new messages. After a message has been played it is marked as being an old message. Old messages are automatically deleted after 24 hours unless you mark the message as saved.



When you listen to any of your messages you have the following options:

- Press **4** to delete the message.
- Press **5** to save the message.
- Press **6** to forward the message. See Forwarding a Message 45.
- Press 7 to repeat the last message.
- Press **8** to exit voicemail.
- Press **9** to skip to the next message.
- Press ***** to rewind the message a few seconds.
- Press **#** to advance the message a few seconds.
- Press ****** to return the call. See Replying to Messages 45.

To listen to an old message

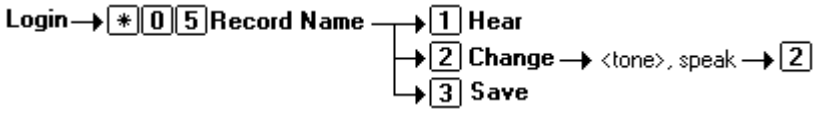
1. Login 39 to your mailbox.
2. Press **1** to listen to your old messages.

To save a message

1. Press **5** when listening to a new or old message.

5.3 Record Your Name

You can record your name if required. Your name recording is then used for various features such as telling callers which mailbox they have reached rather than just stating the extension number.



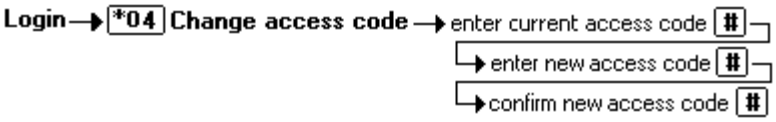
To record or change your greeting

1. Login to your mailbox.
2. Press ***05** to select the option to record your name.
3. Press **1** to hear your current name recording.
4. Press **2** to record your name. .
5. When you are prompted speak your name. The maximum length that can be recorded is 5 seconds.
6. Press **2** when you have finished recording your name.
7. Press **1** to listen to your new name recording. After you have listened you can:
   - Press **3** to save the new recording.
   - Press **2** to record the new name again.

5.4 Changing Your Access Code

You can set an access code for your mailbox. If you set an access code, it will be requested whenever you access the mailbox to collect messages. When changing your access code:

- Enter at least four digits. If you enter less than four digits you will be prompted to enter a longer code.
- Do not set an obvious code, for example:
  - Do not match your extension number.
  - Do not use a sequence of digits, for example 1234.
  - Do not use the same repeated digit, for example 1111.
- If you forget your access code, your system administrator can clear it.



To change your access code

1. Login 40 to your mailbox.
2. Press ***04** to change your access code.
3. Enter your current access code and press **#**. If you have no current access code just press **#**.
4. Enter your new access code followed by **#**. The access code must be between 4 and 15 digits in length.
5. Re-enter your new access code followed by **#**.The access code will now be changed.
   - The system will prompt you if the codes do not match or is not acceptable. It will also confirm the change of access code if successful.

To remove your access code

1. Log in to your mailbox.
2. Press ***04** to change your access code.
3. Enter your current access code and press **#**.
4. When you are asked to enter your new access code, press **#**.
5. When you are asked to re-enter your access code, press **#**. Your access code will have been removed.

5.5 Changing Your Greeting

By default the system will play a general greeting to callers who are directed to your mailbox, stating your extension number, or name if you have recorded on, and askign them to leave a message after the tone. You can override the default greeting with your own personal greeting.

To listen to your greeting

1. Login 39 to your mailbox.
2. Press **3** to select the option to edit your greeting.
3. Press **1** to hear your greeting. If no greeting has been recorded your will hear *"The message has not yet been recorded"*. You need to record a message.

To record or change your greeting

1. Login 39 to your mailbox.
2. Press **3** to select the option to edit your greeting.
3. Press **2** to change your greeting.
4. When you are prompted speak your new greeting.
   - The greeting must be longer than 3 seconds.
   - A long (approximately 10 seconds) period of silence will disconnect you from voicemail.
5. Press **2** when you have finished recording your greeting.
6. Press **1** to listen to your new greeting. After you have listened to your greeting you can:
   - Press **3** to save the new greeting. Your new greeting will be used.
   - Press **2** to re-record the new greeting.
   - Press **4** to save the new greeting for playing on a continuous loop. This option can be used to continually play the greeting to a caller; the caller will not be able to leave a message. Note that once this option is selected, the greeting cannot be changed back to a normal greeting except by recording a new greeting.

5.6 Voicemail Coverage On/Off

You can chose to have calls to your extension be rerouted to your voicemail mailbox if you do not answer the call within a set number of rings, the default being 3 rings. This is called VMS Cover. The number of rings used for your extension is set by your system administrator.

- If an extension has Call Coverage 27 and VMS Cover active, a covered calls ring at the covered extension for the specified number of Call Coverage Rings. It will then start ringing the covering extensionIf the covering extension does not answer, the call is routed to the voice mailbox of the extension that activated Call Coverage after the specified number of VMS Cover Rings. The count of VMS cover rings starts when the covered extension initially begins to ring. If the covering extension has Do Not Disturb 34 active, the call is routed immediately to the voice mailbox of the extension that activated Call Coverage.
- Users with VMS Cover turned on can activate Do Not Disturb 34 to send ringing calls immediately to their voice mailbox.
- Note that when your voicemail cover is off, you can still access the messages in your mailbox and other users can still use forwarding 45 to send messages to your mailbox.

To create a VMS cover button (ETR 18D/ETR 34D Phone)

1. At the phone press **Feature 00**.
2. **Program Extension:** is shown on the display.
3. Press the button that you want to edit or enter a number between 03 to 80 to select a button. The current setting of the button is displayed.
4. Dial **FEATURE 15**.
5. The current setting of the button will now be set to **VMS Cover**.

- Exit programming by pressing **Feature 00**. You can also exit programming mode by lifting the handset, then place it back in the cradle.

To create a VMS cover button (1408/1416 Phone)

1. At the extension press **Admin**.
2. Press the programmable button you want to change. Alternatively:
   - Use the ▲ up or down ▼ arrows to scroll to **Telephone Programming**. Press **Select**.
   - At the **Button:** prompt press the button to edit or enter from 03 to 80.
3. The current setting of that button is displayed.
3. Press **Program** and either dial **#15** or use the ▲ up or down ▼ arrow buttons to scroll the display to **VMS Cover** and press **Select**.
4. The current setting of the button will now be set to **VMS Cover**.

- Exit programming by pressing **PHONE/EXIT**. Alternatively use the **Back** button to move to another menu.

5.7 Forwarding a Message

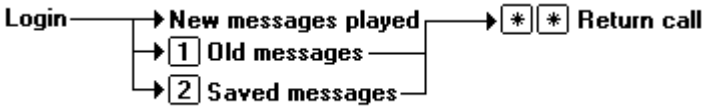
You can forward a message to a different mailbox or to several mailboxes at the same time. When you forward a message you can record your own comment to the start of the message.

To forward a message

1. When you are listening to a message, press **6**.
   - To forward the message without adding a comment press **2**.
   - To forward the message after adding a comment at the start press **3**. Record your comment after the tone. Record your comment and press **#** to finish recording.
2. Enter the extension number to which you want to forward the message and press **#**.
   - If you want to send the message to more than one mailbox enter each mailbox extension number separated by a **#**.
3. Press **#** to finish addressing and forward the message.

5.8 Calling a Message Sender

You can call the person who left a message in your mailbox. Both internal and external callers can be called back. For external callers, you can only reply if their caller ID was available when the message was left.



To reply to a voice message

1. While you listen to a message, press ******. If a caller ID was received when the message was left, a call will be placed to that number.

5.9 Voicemail Email

You can have notification of new messages sent to your email address. The notification can be a simple alert to tell you that you have a message or a copy of the voicemail message if required.

In order to use this feature your system administrator must configure your phone system to use email and enter your email address into the system configuration. If this has not been done your will hear '*Email is not enabled on this mailbox*' whenever you try to use an email option.

To switch on email notification

You can set up your mailbox so that any messages received in future are forwarded to your email address. The messages are not stored in your voicemail mailbox.

1. Login 39 to your mailbox.
2. Select the required type of email notification.
   - For a email alert press ***02**.
   - To have the message forwarded to your email, press ***01**.

To forward a message to email

If you are listening to a message you can send the message to your email either whilst listening to it or immediately after it has been played.

1. During or immediately after playing a message, press **6**.
2. Press **1**. The message is forwarded to your email address.

To switch off email notification

If you have chosen any of the email notification options, you can switch them off from your telephone.

1. Log into your mailbox.
2. Press ***03**. You hear a confirmation message to tell you that the option is now turned off.

5.10 Visual Voice

1408 and 1416 phones can access their mailbox messages and settings using a series of menus displayed on the phone. This is called **Visual Voice**.

To access visual voice press the **MESSAGE** button on the phone. The controls available are:

- **Listen**
  Access your own voicemail mailbox. When pressed the screen will show the number of **New**, **Old** and **Saved** messages. Select one of those options to start playback of messages in that category. Use the ▲ up arrow and ▼ arrow keys to move through the message. Use the options below
  - **Listen**
    Play the message.
  - **Pause**
    Pause the message playback.
  - **Delete**
    Delete the message.
  - **Save**
    Mark the message as a saved message.
  - **Call**
    Call the message sender if a caller ID is available.
  - **Copy**
    Copy the message to another mailbox. When pressed a number of additional options are displayed.
- **Message**
  Record and send a voicemail message to another mailbox or mailboxes.
- **Greeting**
  Change the main greeting used for callers to your mailbox. If no greeting has been recorded then the default system mailbox greeting is used.
- **Email**
  This option is only shown if you have been configured with an email address for voicemail email usage by the System Administrator. This control allows you to see and change the current voicemail email mode being used for new messages received by your voicemail mailbox. Use **Change** to change the selected mode. Press **Done** when the required mode is displayed. Possible modes are:
- **Password**
  Change the voicemail mailbox password. To do this requires entry of the existing password.
- **Voicemail**
  Switch voicemail coverage on/off.

Using the Visual Voice Button for Voicemail Transfer

If pressed when you have a call is connected, the **MESSAGE** button allows entry of an extension number for direct to voicemail transfer of the connected call.

Chapter 6.
Contacts (1408/1416)

6. Contacts (1408/1416)

This menu is accessed by pressing the key. It is used to display names and numbers that you can then use for making calls.

The directory includes names stored for use by all users, names stored for use by just you and the name and numbers of all the other users and groups on the phone system.

6.1 Viewing Contacts Details

1. Access the contacts directory:
   a. Press the **CONTACTS** key. The directory menu is displayed.
   b. Use the left and right arrow keys to select which type of directory entries you want displayed.
      - **All**
        All directory entries.
      - **Personal**
        Your personal speed dials.
      - **External**
        The system speed dials.
      - **Users**
        The names and numbers of other users on the telephone system.
      - **Groups**
        The names and numbers of hunt groups on the telephone system.
   c. Either press the **List** soft key to display all the directory entries or start dialing the name to display only matching entries.
   d. Use the up and down arrow keys to scroll through the matching entries. To return to the start to match a different directory selection, press the **Clear** soft key.
2. When the required entry is displayed, press **Details** to display the name and number.
3. Use the up and down arrow key to switch between the name and the number.
4. The range of soft keys available will depend on the type of directory entry:
   - **Call** 51
     Make a call to the stored number.
   - **Back**
     Go back to the directory listing.
   - **More**
     If the contact is one of your personal directory entries, the **More** soft key will be present to allow you to access the options below. It is also present for external directory entries if you are a system administrator (ext. 10 or 11).
   - **Edit** 51
     Edit the name and number.
   - **Delete** 52
     Delete the name and number.

6.2 Make a Call from the Directory

You can use any directory contacts to make a call. You can also use the directory in almost any telephone function where you need to select the number for a destination, for example during transfers.

1. Access the contacts directory:
   a. Press the **CONTACTS** key. The directory menu is displayed.
   b. Use the left and right arrow keys to select which type of directory entries you want displayed.
      - **All**
        All directory entries.
      - **Personal**
        Your personal speed dials.
      - **External**
        The system speed dials.
      - **Users**
        The names and numbers of other users on the telephone system.
      - **Groups**
        The names and numbers of hunt groups on the telephone system.
   c. Either press the **List** soft key to display all the directory entries or start dialing the name to display only matching entries.
   d. Use the up and down arrow keys to scroll through the matching entries. To return to the start to match a different directory selection, press the **Clear** soft key.
2. When the required entry is displayed, press **Call**.
3. Continue as for a normally dialed call.

6.3 Editing a Contact

You can edit the contacts in your own personal directory.

1. Access your personal directory contacts:
   a. Press the **CONTACTS** key. The directory menu is displayed.
   b. Use the left and right arrow keys to select your ***Personal*** directory. Extensions 10 and 11 can also add, edit and delete entries from the **External** directory.
   c. Either press the **List** soft key to display all the directory entries or start dialing the name to display only matching entries.
   d. Use the up and down arrow keys to scroll through the matching entries. To return to the start to match a different directory selection, press the **Clear** soft key.
2. Locate the required entry.
3. Press the **Details** soft key.
4. Press the **More** soft key and then the **Edit** soft key.
   - The menu now allows editing of the name and number.
   - Use the up and down arrow keys to switch between number and name entry.
   - When the name has been entered as required, press the **OK** soft key.
   - When the number has been entered as required, press the **Save** soft key.
   - To exit without making any changes, press the **Cancel** soft key.

6.4 Adding a New Contact

So long as the telephone system capacity has not been reached, you can add up to 100 personal directory entries.

1. Access your personal directory contacts:
    a. Press the **CONTACTS** key. The directory menu is displayed.
    b. Use the left and right arrow keys to select your ***Personal*** directory. Extensions 10 and 11 can also add, edit and delete entries from the **External** directory.
2. Press the **New** soft key.
    - The menu now allows editing of the name and number.
    - Use the up and down arrow keys to switch between number and name entry.
    - When the name has been entered as required, press the **OK** soft key.
    - When the number has been entered as required, press the **Save** soft key.
    - To exit without making any changes, press the **Cancel** soft key.

6.4.1 Add a Contact from the Call Log

You can add a name and number shown in your call log to your personal speed dials. You can only do this if there is space in your allowed 20 personal speed dials.

1. Access the call log.
    a. Press the **CALL LOG** button.
    b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
    c. Use the up and down arrow keys to scroll through the records.
2. Press the **Details** soft key. The individual details of the currently selected call record are displayed.
3. Press the +**Contact** soft key.
4. Use the up and down arrow keys to switch between the name and number details for the new contact.
5. Using the telephone keypad and the **Bksp** soft key you can edit the name and the number. When editing the number, use the **Pause** soft key to enter a comma (,) for a 1 second pause in the number dialing.
6. When the name and number are set as required, press the **Save** soft key. To return without saving the name and number, press the **Cancel** soft key.

6.5 Deleting a Contact

You can delete a personal speed dial from your contacts.

1. Access your personal directory contacts:
    a. Press the **CONTACTS** key. The directory menu is displayed.
    b. Use the left and right arrow keys to select your ***Personal*** directory. Extensions 10 and 11 can also add, edit and delete entries from the **External** directory.
    c. Either press the **List** soft key to display all the directory entries or start dialing the name to display only matching entries.
    d. Use the up and down arrow keys to scroll through the matching entries. To return to the start to match a different directory selection, press the **Clear** soft key.
2. Locate the required entry.
3. Press the **Details** soft key.
4. Press the **More** soft key and then the **Delete** soft key.

Chapter 7.
Call Log (1408/1416)

7. Call Log (1408/1416)

This menu is accessed by pressing the key.

- **Making a Call** 54
- **Viewing Call Details** 55
- **Deleting a Record** 56
- **Deleting All Records** 56
- **Add a Record to Your Contacts** 56

7.1 Using the Call Log

1. Access the call log.
   a. Press the **CALL LOG** button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Pressing **OK** will make a call to the number stored with the currently displayed record.
3. You can use the functions listed at the bottom of the display by pressing the soft key below the function name.
   - **Call** 54
     Make a call to the number stored in the currently displayed call log record.
   - **Details** 55
     Display more details about the current call log record. You can then also add the caller details to your personal directory 56 if required.
   - **More**
     Switch between the different sets of available soft key functions.
   - **Delete** 56
     Deletes the current displayed record.
   - **Del All** 56
     Delete all the call log records, not just the current types of records being shown.
4. To exit the call log, press the **PHONE/EXIT** button.

7.2 Making a Call from the Call Log

You can use the call log to make calls to the number included in the currently selected call record.

1. Access the call log.
   a. Press the **CALL LOG** button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Press the **Call** soft key or **OK** to call the number displayed in the call record.

7.3 Viewing Call Details

You can view additional details about the currently shown call.

1. Access the call log.
   a. Press the **CALL LOG** button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Press the **Details** soft key. The individual details of the currently selected call record are displayed.
3. Use the ▲ up and down ▼ arrow keys to scroll through the details. The possible values are:
   - **Time**
     The time of the call.
   - **Duration**
     The length of the call.
   - **Name**
     The name of the caller if known.
   - **Number**
     The number of the caller if available.
   - **Reason**
     The type of call record, ie. ***Answered***, ***Outgoing*** or ***Missed***.
   - **Count**
     How many time a call of the same type, name and number has occurred. Only the details of the most recent call are kept in your call log. However the count will indicate if the caller has rung or has been rung several times.
4. While you are in the details of a call record, the soft key functions available are:
   - **Call**
     Call the number shown in the call record. You can also do this by pressing the **OK** button.
   - **+Contact**
     Add the name and number to your personal directory. You can edit the details before they are added.
   - **Back**
     Go back to the normal call screen to select another call record.

7.4 Deleting a Record

You can delete the currently displayed call record.

1. Access the call log.
   a. Press the **CALL LOG** button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Press the **More** soft key.
3. Press the **Delete** soft key to delete the currently displayed call log record.

7.5 Deleting All Records

You can delete all call records from your call log.

1. Access the call log.
   a. Press the **CALL LOG** button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Press the **More** soft key.
3. Press the **Del All** soft key to delete all your call log records.

7.6 Adding a Record to Your Contacts

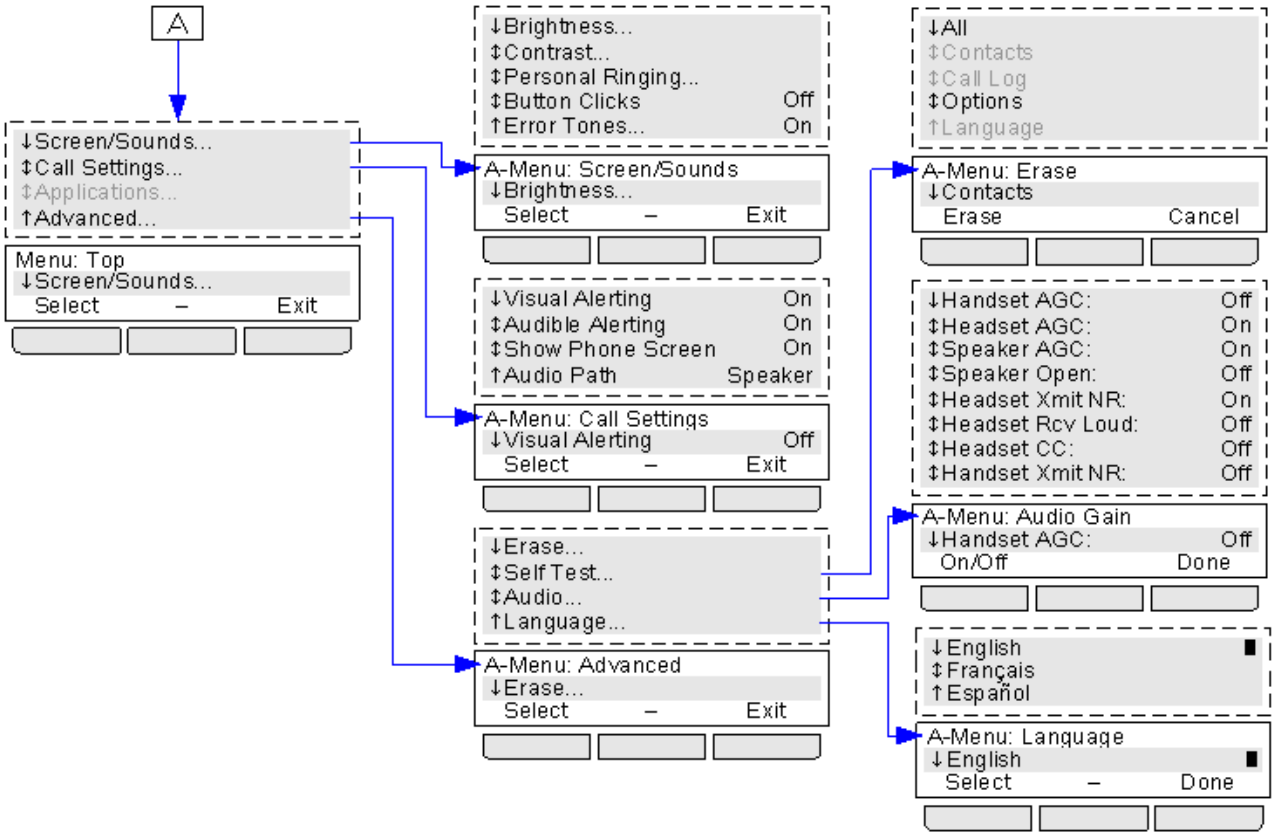
You can add a name and number shown in your call log to your personal speed dials. You can only do this if there is space in your allowed 20 personal speed dials.

1. Access the call log.
   a. Press the **CALL LOG** button.
   b. The display will change to show your call log records. The caller's name is shown if known, otherwise the number.
   c. Use the ▲ up and down ▼ arrow keys to scroll through the records.
2. Press the **Details** soft key. The individual details of the currently selected call record are displayed.
3. Press the +**Contact** soft key.
4. Use the ▲ up and down ▼ arrow keys to switch between the name and number details for the new contact.
5. Using the telephone keypad and the **Bksp** soft key you can edit the name and the number. When editing the number, use the **Pause** soft key to enter a comma (,) for a 1 second pause in the number dialing.
6. When the name and number are set as required, press the **Save** soft key. To return without saving the name and number, press the **Cancel** soft key.

Chapter 8.
Phone Settings (1408/1416)

8. Phone Settings (1408/1416)

The [A] MENU key is used to access a range of phone settings for your 1400 Series phone.



Options that are greyed out in the diagram above are not accessible or used.

8.1 A-Menu Auto Exit

The **Show Phone Screen** option only applies to the A-menu screens accessed when you press the [A] key. If the option is on, if you receive a call while in the A-menu, the phone will automatically exit the menus and display the call details.

1. Press the [A] **MENU** button.
2. Use the ▲ up and down ▼ arrow keys to locate the option **Call Settings...**.
3. Press the **Select** soft key.
4. Use the ▲ up and down ▼ arrow keys to locate the option **Show Phone Screen**.
5. Use the ◀ left and right ▶ arrow keys or press the **On/Off** soft key to change the setting.
6. When completed, press the **Done** soft key.
7. Press the **Exit** soft key to exit the menus.

8.2 Visual Alerting

The message waiting lamp at the top-right corner of the phone can also be used to indicate when you have a call alerting your phone. The lamp is flashed to indicate a call waiting to be answered.

1. Press the A **MENU** button.
2. Use the ▲ up and down ▼ arrow keys to locate the option **Call Settings...**.
3. Press the **Select** soft key.
4. Use the ▲ up and down ▼ arrow keys to locate the option **Visual Alerting**.
5. Use the ◀ left and right ▶ arrow keys or press the **On/Off** soft key to change the setting.
6. When completed, press the **Done** soft key.
7. Press the **Exit** soft key to exit the menus.

8.3 Audible Alerting

The phone's audible ringer can be switched off. This only affects the ring and does not affect the visual alerting 59.

1. Press the A **MENU** button.
2. Use the ▲ up and down ▼ arrow keys to locate the option **Call Settings...**.
3. Press the **Select** soft key.
4. Use the ▲ up and down ▼ arrow keys to locate the option **Audible Alerting**.
5. Use the ◀ left and right ▶ arrow keys or press the **On/Off** soft key to change the setting.
6. When completed, press the **Done** soft key.
7. Press the **Exit** soft key to exit the menus.

8.4 Ring Sound

You can adjust the sound of the ring used by the phone.

1. Press the A **MENU** button.
2. Press the **Select** soft key.
3. Use the ▲ up and down ▼ arrow keys to locate the option **Personalized Ringing**. Press the **Select** soft key.
   - Use the ▲ up and down ▼ arrow keys to scroll through the different available ring patterns.
   - Press the **Play** soft key to repeat the currently display ring pattern.
   - To make the currently displayed ring pattern the selected ring pattern for the phone press the **Save** soft key.
   - To leave the menu without making any changes press the **Cancel** soft key.
4. When completed, press the **Done** soft key.
5. Press the **Exit** soft key to exit the menus.

8.5 Display Brightness

1. Press the A **MENU** button.
2. Press the **Select** soft key.
3. Press the **Select** soft key.
4. Use the ◀ up and down ▶ arrow keys to adjust the brightness as required.
5. When completed, press the **Done** soft key.
6. Press the **Exit** soft key to exit the menus.

8.6 Display Contrast

1. Press the A **MENU** button.
2. Press the **Select** soft key.
3. Use the ▲ up and down ▼ arrow keys to locate the option **Contrast**.
4. Press the **Select** soft key.
5. Use the ◀ left and right ▶ arrow keys to adjust the brightness as required.
6. When completed, press the **Done** soft key.
7. Press the **Exit** soft key to exit the menus.

8.7 Display Language

The system administrator can configure which language your extension uses. Though the phone's menu you can change this settings.

IP Office PARTNER Version only supports English, French and Latin Spanish. The phone menu may display other languages supported by the phone. If one of these other languages is selected, the languages displayed on the phone menu may be a mix of that language and English.

1. Press the A **MENU** button.
2. Use the ▲ up and down ▼ arrow keys to locate the option **Advanced**.
3. Press the **Select** soft key.
4. Use the ▲ up and down ▼ arrow keys to locate the option **Language**.
5. Press the **Select** soft key.
6. Use the ▲ up and down ▼ arrow keys scroll through the different languages available.
7. To select the language currently displayed, press the **Select** soft key or **OK**.
8. When completed, press the **Done** soft key.
9. Press the **Exit** soft key to exit the menus.

8.8 Error Tones

1. Press the A **MENU** button.
2. Press the **Select** soft key.
3. Use the ▲ up and down ▼ arrow keys to locate the option **Error Tone**.
4. Use the ◀ left and right ▶ arrow keys or press the **On/Off** soft key to change the setting.
5. When completed, press the **Done** soft key.
6. Press the **Exit** soft key to exit the menus.

8.9 Button Clicks

While using the phone menus, the phone can provide a key press confirmation click sound. This can be turned off if it is annoying.

1. Press the A **MENU** button.
2. Press the **Select** soft key.
3. Use the ▲ up and down ▼ arrow keys to locate the option **Button Clicks**.
4. Use the ◀ left and right ▶ arrow keys or press the **On/Off** soft key to change the setting.
5. When completed, press the **Done** soft key.
6. Press the **Exit** soft key to exit the menus.

8.10 Default Handsfree Audio Path

By default, when you make a call or answer a call without lifting the handset, the audio is played through the phone's speaker while you speak via the phone's microphone.

If you have a headset attached, you can change the phone's behavior so the audio is played through the headset by default rather than the speaker.

1. Press the A **MENU** button.
2. Use the ▲ up and down ▼ arrow keys to locate the option **Call Settings...**.
3. Press the **Select** soft key.
4. Use the ▲ up and down ▼ arrow keys to locate the option **Audio Path**.
5. Use the ◀ left and right ▶ arrow keys or press the **Change** soft key to change the setting.
6. When completed, press the **Done** soft key.
7. Press the **Exit** soft key to exit the menus.

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IP Office Essential Edition

PARTNER Version Reference

- Issue 1a - (30 January 2010)

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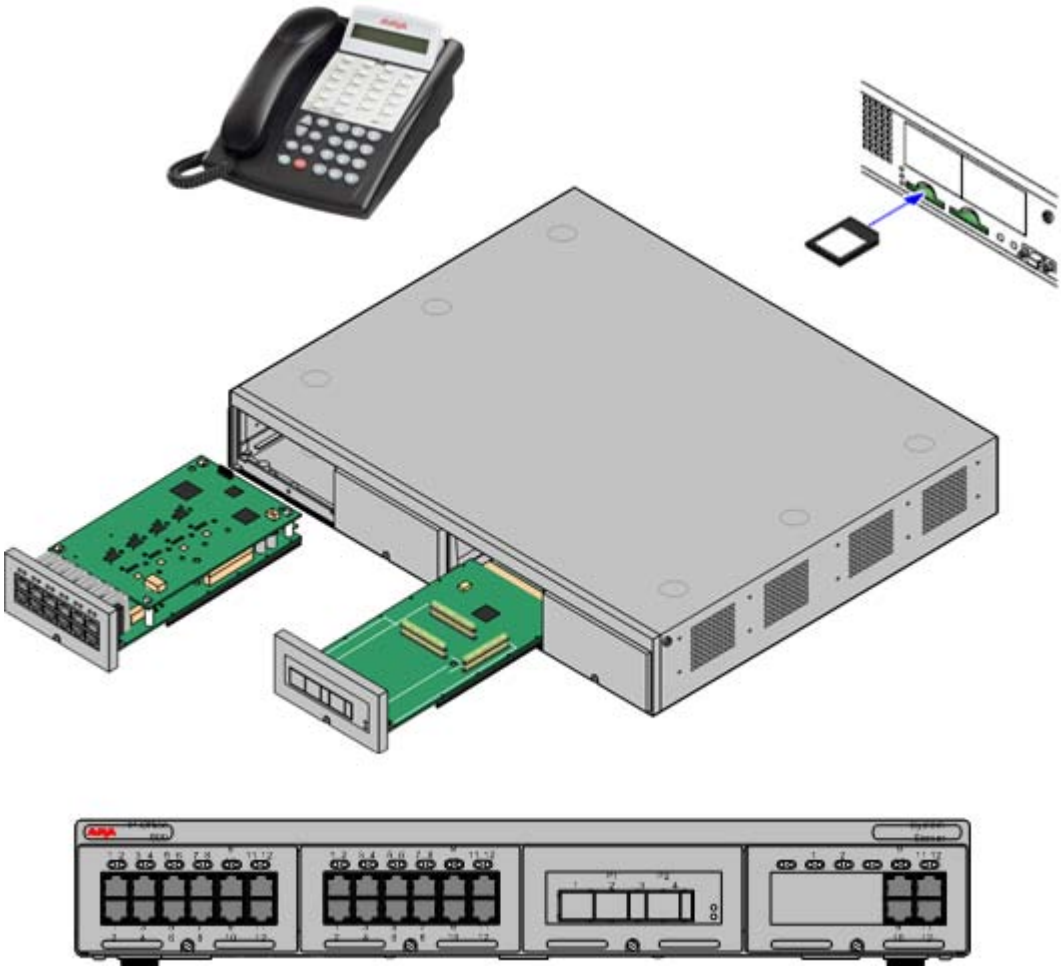
Chapter 1. Introduction

1. Introduction



Avaya IP Office Essential Edition - PARTNER® Version is a telephone system designed for single site businesses typically with 5 to 25 extensions, that need a small business communications solution which is reliable, established, scalable, easy to use, and can grow as needed. IP Office Essential Edition - PARTNER® Version is an IP / Digital communication system designed exclusively to meet the unique needs of a small business.

The Essential Edition - PARTNER® Version supports a selection of system telephones, many with displays that show you programming and operation feedback. But don't throw that old telephone away, because the Essential Edition - PARTNER® Version includes support for many single-line telephones. And you can connect many auxiliary devices, such as fax machines, answering machines, modems, and credit card scanners, to the system.

On-board basic voice mail eliminates the need for additional hardware.

This document provides system and component descriptions with details to support configuration and maintenance activities. The main administration and analysis tool used with the Essential Edition - PARTNER® Version is the Essential Edition - PARTNER® Version admin tool known as Manager which has its own user manual.

For customers or maintainers who do not have access to Manager, almost all settings described in this document and in the Essential Edition - PARTNER® Version Admin Tool User Manual, can be achieved through manual TUI commands described in the IP Office Essential Edition ETR Telephone System Programming User Guide.

Associated documents are:

- IP Office Essential Edition - PARTNER® Version - Quick Install Manual
- IP Office Essential Edition - PARTNER® Version - Administrator Tool Guide
- IP Office Essential Edition - PARTNER® Version - Programming and User Guide
- IP Office Essential Edition - PARTNER® Version - ETR Telephone System Programming and User Guide
- Individual User Guides for associated telephone instruments. (ETR, 1400, 3910, 3920)

IP Office Technical Bulletins

Ensure that you have obtained and read the IP Office Technical Bulletin relating to the IP Office software release which you are installing. This bulletin will contain important information that may not have been included in this manual. IP Office Technical Bulletins are available from the Avaya support website *http://support.avaya.com*).

1.1 How this book is structured

This book contains seven chapters, which provide information as follows:

Chapter 1, Introduction — briefly details the installation procedure for Essential Edition - PARTNER® and provides standard Avaya information.

Chapter 2, System Overview — describes the Essential Edition - PARTNER® system structure, the system features, modes of operation, system capacities.

Chapter 3, Getting Started — briefly describes where and how to mount equipment, equipment checks and unpacking

Chapter 4, Installing IP Office — intended primarily for the technician, explains the physical installation of the control unit and the telephones.

Chapter 5, Administration — explains how the system configuration can be altered and how software and hardware can be upgraded as new modules and releases become available.

Chapter 6, System Component Details — descriptions of system components identified in Chapter 2, System Overview.

Chapter 7, Troubleshooting — how to handle problems occurring during installation and operation. Describes possible problems with the telephone system and the solutions to these problems.

Appendix — supplementary information

Index

Document History

Version	Change	Name	Date
Draft 1	Initial issue	V Vella	12 Nov 2009
Draft 2	ER comments	V Vella	20 Nov 2009
Draft 3	Nomenclature correction and edit	V Vella	
Draft 4	First review draft	V Vella	12 Jan 2010
Draft 5	Continued editing and review comments	V Vella	22 Jan 2010
Issue 1.0	Issued for final review	V Vella	3 Feb 2010

Document Conventions

The following font attributes are used in this document:

- Bold — Used to emphasize, identify commands or highlight menu selections
- *Italic* — Used to identify dialog fields, windows, or documents
- Courier — Used for code listings, file names and command line content

1.2 RoHS

RoHS is a European Union directive for the Removal of Certain Hazardous Substances from Electrical and Electronic Equipment. Similar legislation has been or is being introduced in a number of other countries. Avaya has decided to make its global product range compliant with the requirements of RoHS.

The actions taken vary:

- In some cases equipment has been discontinued and is no longer available from Avaya.
- In some cases new manufactured stock has been made RoHS compliant and keeps its existing Part number.
- In other cases the equipment has been replaced by a new RoHS compliant alternative with new Part numbers.

The Part numbers within this document are for RoHS compliant equipment unless otherwise stated.

1.3 Repair

Essential Edition - PARTNER® Version systems do not contain any user serviceable or repairable components. If a faulty unit is suspected the whole unit should be replaced.

IP Office 500v2 control units should not be opened under any circumstances.

1.4 Equipment Availability

Part numbers and details of specific items within this documentation are for reference only. Items available in any specific locale should be confirmed against the local Essential Edition - PARTNER® Version price list for that locale. The local price list may also include additional items relative to the installation requirements of that locale.

1.5 Web Sites

Information to support the IP Office can be found on a number of web sites.

- Avaya - http://www.avaya.com
  The official web site for Avaya. The front page also provides access to individual Avaya web sites for different countries.
- Avaya Enterprise Portal - http://partner.avaya.com
  This is the official web site for all Avaya Business Partners. The site requires registration for a user name and password. Once accessed, the site portal can be individually customized for what products and information types you wish to see and to be notified about by email.
- Avaya Support - http://support.avaya.com
  Contains documentation and other support materials for Avaya products including IP Office. Copies of the IP Office CD images are available from this site and updated core software .bin files.
- Avaya IP Office Knowledge Base - http://marketingtools.avaya.com/knowledgebase
  Access to an on-line regularly updated version of the IP Office Knowledge Base. Currently this link is only available to Avaya Business Partners while running an ARA account (Avaya Remote Access) connection.
- Avaya University - http://www.avaya-learning.com
  This site provides access to the full range of Avaya training courses. That includes both on-line courses, course assessments and access to details of classroom based courses. The site requires users to register in order to provide the user with access to details of their training record. See Training.
- Avaya Community - http://www.aucommunity.com
  This is the official discussion forum for Avaya product users. However it does not include any separate area for discussion of Essential Edition - PARTNER® Version issues.
- Avaya UPS Calculator - http://ups.avayaups.com
  An online calculator for uninterruptible power supply (UPS) requirements. Allows specification of a range of equipment to be supported. See Power Supply Backup (UPS).
- Other Non-Avaya Web Sites
  A number of third-party web forums exist that discuss Essential Edition - PARTNER® Version. These can act as useful source of information about how the Essential Edition - PARTNER® Version is used. Some of these forums require you to be a member and to register. These are not official Avaya forums and their content is not monitored or sanctioned by Avaya.
  - Tek-Tips: http://www.tek-tips.com.
  - IP Office Info: http://www.ipofficeinfo.com.
  - Yahoo Groups: http://groups.yahoo.com/group/ipoffice.
  - Lycos Forum: http://members.lycos.co.uk/ipoffice.
  - PBX Tech: http://www.pbxtech.info/forumdisplay.php?f=8.

1.6 Training

Avaya University provides a wide range of training courses for IP Office and its associated applications. This includes courses necessary for IP Office resellers to become Avaya Authorized Channel Partners and for individuals to achieve IP Office certification.

Details of all the course can be found on the Avaya University web site (http://www.avaya-learning.com). The site can be used to check course availability and to book course. It also includes on-line courses and on-line course assessments. The site requires users to setup a user name and password in order to track their personal training record.

Chapter 2.
System Overview

2. System Overview

This section looks at the components that collectively form the Essential Edition - PARTNER® Version system. This includes aspects such as cabling and the need for additional non-Avaya IP Office equipment.

The section provides only a general description of individual units. For greater detail, refer to the System Components section.

2.1 Partner® Features

The following basic features are provided by Essential Edition - PARTNER® Version:

- Prompts and feedback displays on both ETR and 1400 sets, emulate the PARTNER ACS R8 system.
- Integral SD card contains system files, and backup files. Automatic backup every 24 hours
- Up to 48 extensions
- Avaya ETR Telephone support
- Avaya 1400 Digital Telephone support
- Key System Functionality
- Embedded Voicemail
- SIP Trunking (up to 10 trunks)
- Supports the Essential Edition - PARTNER® Version Manager application.
- Supports the System Status Application
- Supports the System Monitor Application
- TAPI
- SMDR
- Supports DS16 Expansion Module (adds 16 additional digital station ports.) and Phone16 Expansion Module (adds 16 additional analog station ports)
- 10-party conferencing
- Supports loudspeaker connectivity via a combination card or one of the 2 built-in POTS port on other cards
- Includes 3 instances of SIP and Mobility.
- Call handling mode will change from key to PBX operation

The following features are pre-assigned:

- Last Number Redial
- Drop
- Recall (CO hook flash)
- Auto Line
- Selection – L1, L2, etc.
- Voice Mail Access, Each extension has voice mailbox assigned with Automatic Voice Mail Coverage turned on.

Control unit slot availability – (maximum of 4 of the following cards):

- Up to 2 Combination cards (each provides 6 DS ports; 2 POTS station ports; 4 POTS line ports; and 10 VCM channels {supports up to 10 SIP lines})
- Up to 3 Essential Edition - PARTNER® Version ETR6 cards (each provides 6 ETR station ports)
- Up to 3 DS8 cards (each provides 8 digital station ports)
- Up to 3 Phone 8 cards (each provides 8 POTS station ports). Maximum of 3 since a Combination card; DS-8 or ETR-6 must be present in system
- Up to 3 Phone 2 cards (each provides up to 2 POTS station ports). Maximum of 3 since a Combination card; DS-8 or ETR-6 must be present in system
- An ATM4 daughter card can be added to any ETR6 card or DS card, or Phone card increasing POTS line capacity. (up to max 3)
- 1 PRI/T1 daughter card may be added to any ETR6 card or DS card or Phone card, increasing digital line capacity.

2.2 Partner® Constraints

	Max allowed in system
IP Office Essential Edition - PARTNER® Version Base Cards:	
Phone 8 - Base	3
Phone 2 - Base	3
DS 8 - Base	3
ETR6 – Base	3
6DS+2POTS+VCM10 LE Combination	2
IP Office Essential Edition - PARTNER® Version Daughter Cards:	
ATM 4 Uni - daughter	3
PRI 1 Uni - daughter	1
IP Office Essential Edition - PARTNER® Version Expansion Modules:	
IP Office 500v2 PHONE 16	1
IP Office 500v2 DIGITAL STATION 16	1

Essential Edition - PARTNER® Version requires a presence of at least 1 ETR or Digital station to be used for TUI administration. This needs the presence of at least 1 of the following cards:

- Comination Card
- DS8
- ETR-6

System capacity for the Essential Edition - PARTNER® Version is flexible and can use combinations of the following hardware components:

Control unit (4 available slots – maximum of 4 of the following cards):

• Up to 2 Combination cards (each provides 6 DS ports; 2 POTS station ports; 4 POTS line ports; and supports up to 10 SIP lines)

• Up to 3 ETR6 cards (each provides 6 ETR station ports)

• Up to 3 DS8 cards (each provides 8 digital station ports)

• Up to 3 Phone 8 cards (each provides 8 POTS station ports)

o Maximum of 3 because a combination card; DS-8 or ETR-6 must be present in system

• Up to 3 Phone 2 cards (each provides up to 2 POTS station ports)

o Maximum of 3 because a combination card; DS-8 or ETR-6 must be present in system

An ATM4 daughter card can be added to any ETR card or DS card, or Phone card increasing POTS line capacity. 1 PRI/T1 daughter card may be added to any ETR card or DS card or Phone card, increasing digital line capacity.

One expansion module may be added to the main control unit; providing additional growth capability. The supported expansion modules are:

• DS16 Expansion Module (adds 16 additional digital station ports.)

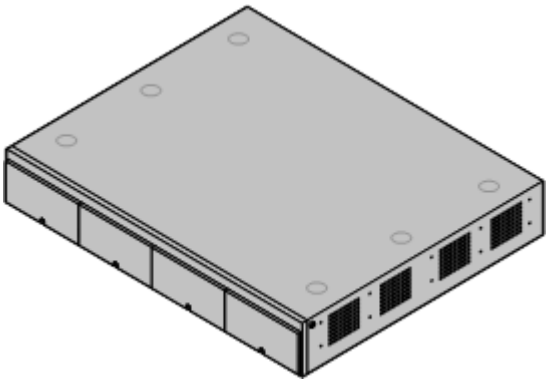
• Phone 16 Expansion Module (adds 16 additional analog station ports)

Based on these configurations; an Essential Edition - PARTNER® Version may support up to 64 lines (1-PRI; 3 ATM4; up to 10 SIP trunks) and up to 48 stations (Up to 18 ETR stations and/or 46 digital ports + 2 POTS). Maximum growth capabilities are software blocked in the system.

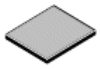
Essential Edition - PARTNER® Version will support up to 10 SIP trunks, which can be assigned across multiple SIP service providers.

2.3 System Components

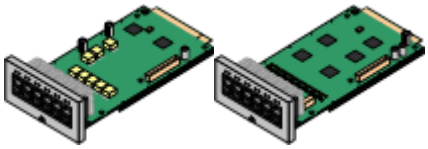
The following are typical components of an Essential Edition - PARTNER® Version system.



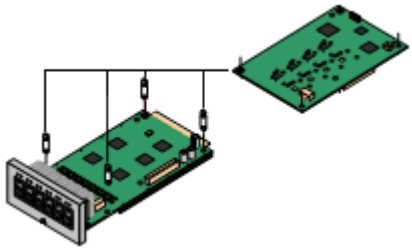
- IP Office 500v2 Control Unit
  The control unit, holds the main configuration and performs the routing and switching for telephone calls and data traffic. The control unit includes LAN ports, slots for additional internal cards and in some cases integral digital and analog phone ports.



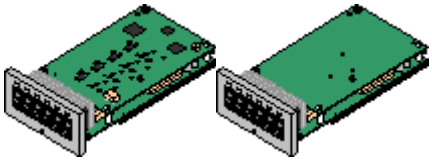
- SD Card
  The IP Office 500v2 control unit uses the Avaya SD flash memory card which has Essential Edition - PARTNER® Version software and Embedded Voicemail already installed. Each Avaya SD card has a unique serial number.



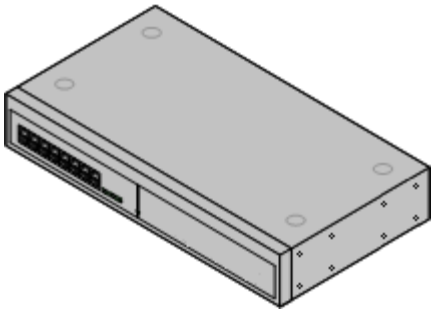
- IP Office 500 Base Cards
  The control unit has slots for up to four base cards. These can be used to add analog and digital extension ports.
  - IP Office 500 Digital Station Base Card
  - IP Office 500 ATM Combination Card
  - IP Office 500v2 ETR6 Base Card
  - IP Office 500 Analog Phone Base Card
  - IP Office 500 VCM Base Card
  - IP Office 500 4-Port Expansion Base Card



- IP Office 500 Trunk Daughter Cards
  Some base cards can be fitted with a IP Office 500 daughter card in order to support various types of trunk connections.
  - IP Office 500 Analog Trunk Card
  - IP Office 500 T1 Trunk Card
  - IP Office 500 PRI Trunk Card
  - IP Office 500 SIP Trunk Card

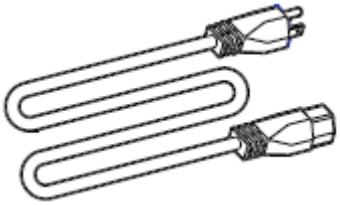


- IP Office 500 Combination Cards
  These card are pre-paired base and daughter cards. They provide 6 digital station ports, 2 analog phone ports and 4 analog trunks.



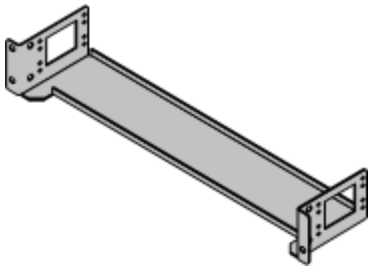
- IP Office 500 External Expansion Modules
  Additional analog and digital extension ports can be added using an IP Office 500 external expansion module.
- Only one Digital Station 16 or one Phone 16 module may be used with Essential Edition - PARTNER® Version.

- Power Supplies
  The IP Office 500 V2 control unit has an internal power supply unit. Each external expansion module is supplied with an external power supply unit. Additional power supply units may also be required for IP phones and some phone add-ons.



- Power Cords
  Depending on the locale, different power cords need to be ordered for each control unit, external expansion module and any phones or devices using external power supply units.

- Cables
  The Essential Edition - PARTNER® Version is designed primarily for connection to a structured cabling system using CAT3 UTP cabling. This approach allows telephone and data traffic to share the same wiring infrastructure and simplifies equipment moves.



- Mounting Kits
  The IP Office 500v2 control unit can be used free-standing, with an external expansion module stacked above it. With optional rack mounting kits, the control unit and external expansion module can also be rack mounted. Alternatively with an optional wall mounting kit the control unit can be wall mounted.

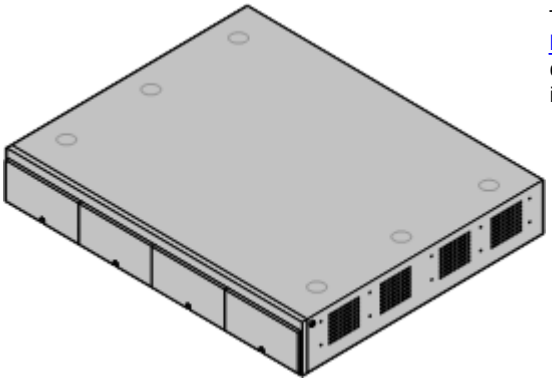
- Surge Protectors and Barrier Boxes
  Where the installation includes extensions in other buildings additional protective equipment is required. This equipment may also be required in areas where the lightning risk is high.

- Phones
  Essential Edition - PARTNER® Version systems support a variety of Avaya digital and wireless phones plus analog phones.

2.4 Control Unit

The base item of the Essential Edition - PARTNER® Version system is the system server or control unit. It stores the system configuration and controls system operation. Essential Edition - PARTNER® Version uses the IP Office 500v2 R6.0 control unit or above.

A control unit can be customized by adding various internal cards such as trunk cards. external expansion modules can be also be connected to add additional extension and trunk ports.



The IP Office 500v2 control unit has four front slots for IP Office 500 base cards. It has an internal power supply unit and uses a mandatory dongle in the form of an SD Card plugged into a rear panel slot. It includes a 2 port ethernet LAN switch (layer 3 managed) on the rear.

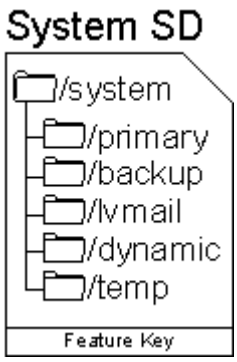
The following table summarizes the capacities of the control unit supported by Essential Edition - PARTNER® software.

Feature	Provision
Control Unit Digital Station Ports	Up to 30
Control Unit Analog Phone Ports	Up to 26
Control Unit ETR Phone Ports	18
Embedded Voicemail Card	✓
Integral WAN Port	Not used
External Expansion Ports	1
Audio In (MOH) Port	✓
External O/P Switch Port	✓
Conference Parties	10
Maximum Extension Capacity	**48**
Digital Phones only.	46
Analog Phones only.	42
ETR Phones only.	18
IP500 Trunk Daughter Cards	
IP500 Analog trunks	✓ 12
IP500 PRI trunk channels	✓ 24
VCM Cards	
IP500 VCM Cards	2**
Dimensions	
Height x Width x Depth	73x445x365mm 2.9"x17.5"x14.4"

** Only supports VCM channels provided by fitting IP500 Combination cards.

2.5 SD Card

The Avaya SD card exercises central control over the Essential Edition - PARTNER® Version system and acts as the License dongle for the control unit. The SD card is inserted into the System SD slot on the rear of the control unit. Except during maintenance the System SD slot should contain an Avaya SD card at all times. The files on that card are used when the system is started and the Feature Key serial number only present on Avaya cards is used for the licensing of Essential Edition - PARTNER® Version features.

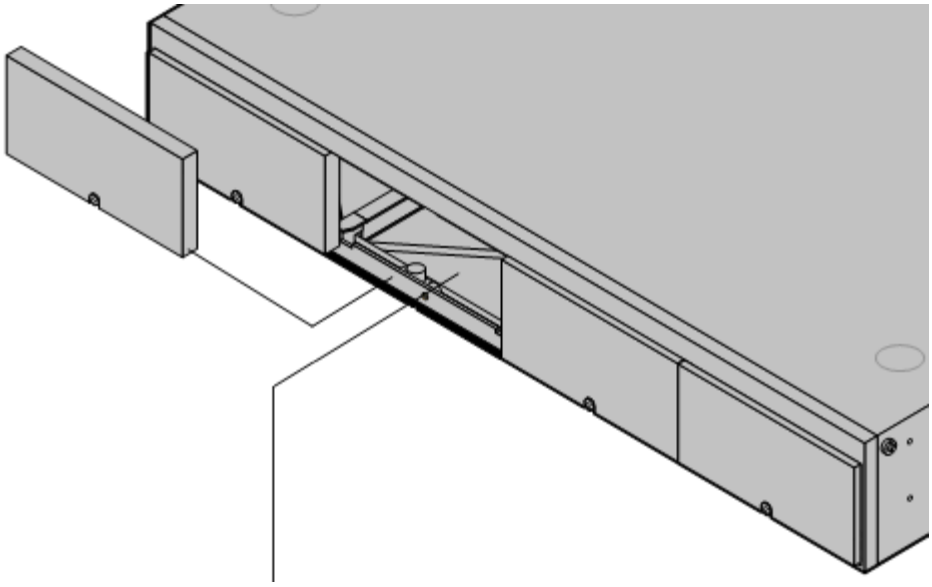


- The SD card stores system files, the system status application (SSA) and a voice mail application providing 2 channels by default but can be licensed for up to 6 channels total.
- The system SD card is also used to store copies of core software binary files, configuration files and backups.
- Various commands within Manager interface enables the SD card contents to be backed up, restored or copied.
- The control unit has an Optional SD slot as well as the System SD slot. This Optional SD card slot can be used to store occasional full copies of the System SD card. or as an additional memory card to or from which, files can be copied. Non-Avaya cards can be used for this as long as they conform to the standard below:
    - SDHC minimum 4GB FAT32 format (Single partition, SDHC, class2+, FAT32, SPI & SD bus).

⚠ SD Card Removal

SD cards should never be removed while being used. Though the SD card slot LEDs indicate when data is being written to an SD card, lack of flashing LED is not a sufficient safeguard. The IP Office Manager provides methods to shutdown and restart an individual card or to shutdown the Essential Edition - PARTNER® Version system in order to allow removal of an SD card. If the System SD card is removed, licensed features will continue operating for up to 2 hours.

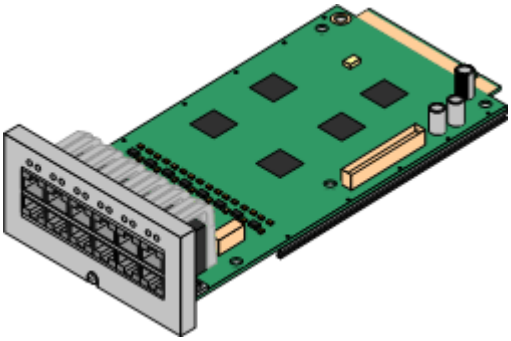
2.6 Base Cards



The IP Office 500v2 control unit has 4 slots to accomodate base cards. Each base cards includes an integral front panel with ports for cable connections.

The slots are numbered 1 to 4 from left to right. Normally they can be used in any order, however if the capacity for a particular type of card is exceeded, the card in the highest slot will be disabled.

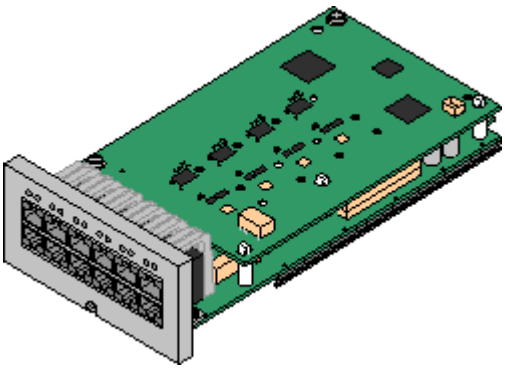
IP Office 500 Analog Phone Base Card



This card has 12 RJ45 ports. The card is available in two variants, providing 2 or 8 analog extension ports for the connection of analog phones. The card can be fitted with an IP Office 500 daughter card which then uses the additional 4 RJ45 ports for connections.

- This card accepts one IP Office 500 daughter card of any type.
- Maximum: 4 per control unit.
- When fitted with an IP Office 500 Analog Trunk daughter card, the Phone 8 base card supports 1 power failure extension to trunk (loop-start only) connection.
- The analog extension ports do not include a ringing capacitor. Where this is a requirement, connection should be via a Master socket containing ringing capacitors.

IP Office 500 ATM Combination Card

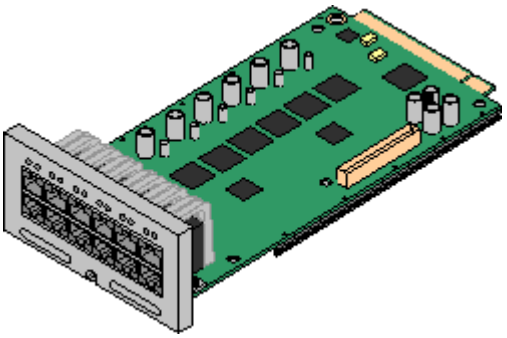


This card provides 6 digital station ports (1-6), 2 analog extension ports (7-8) and 4 analog trunk ports (9-12). The card also includes 10 VCM channels.

- This card has a pre-installed IP Office 500 ATM daughter card.
- Maximum: 2 combination cards per control unit.
- During power failure port 8 is connected to port 12.

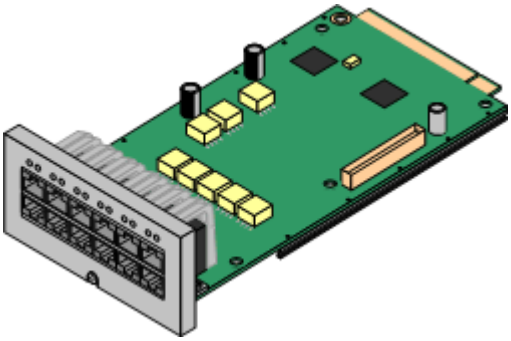
IP Office ETR6 Base Card

This card is only supported in an IP500 V2 control unit running in PARTNER® Version mode. It provides 6 ETR ports for connection of ETR phones. 2 Analog extension ports are also provided for emergency use only with an analog trunk card.



- The card can be fitted with an IP500 trunk daughter card which uses the base card ports for trunk connection.
- Maximum: 3 per control unit.
- The analog phone ports do not include a ringing capacitor. Where this is a requirement, connection should be via a Master socket containing ringing capacitors.
- If fitted with an IP Office 500 Analog Trunk daughter card, during power failure phone ports 7 and 8 are connected to analog trunk port 12. However during normal operation analog phone ports 7 and 8 are not useable.

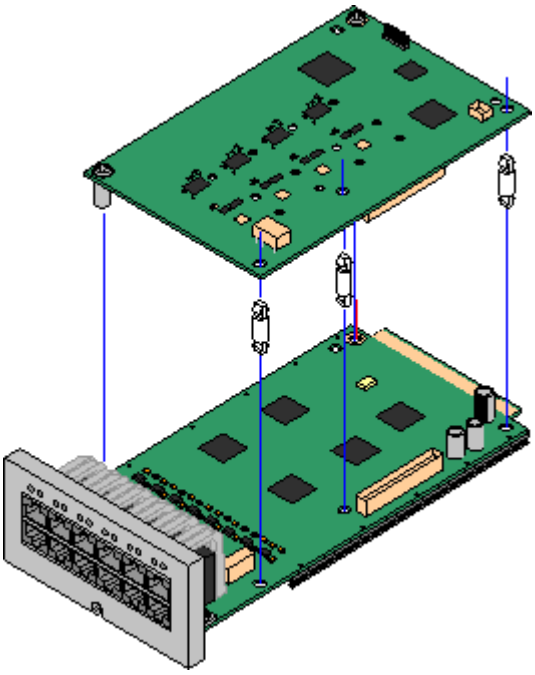
IP500 Digital Station Base Card



This card provides 8 DS (digital station) ports for the connection of Avaya digital phones other than IP phones.

- The card can be fitted with an IP Office 500 trunk daughter card which uses the base card ports for trunk connection.
- Maximum: 3 per control unit.
- 4400 Series phones (4406D, 4412D and 4424D) are not supported on this card. They are supported on an external expansion module.

2.7 Trunk Cards



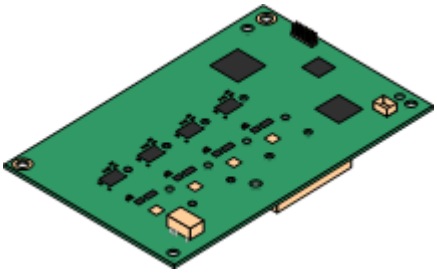
IP Office 500 daughter trunk cards can be fitted to IP Office 500 base cards to provide support for trunk. The daughter card uses the physical ports provided on the front panel of the base card for cable connection.

The addition of an IP Office 500 daughter card is supported on any IP Office 500 base card except the IP Office 500 Legacy Card Carrier base card.

For those base card that support daughter cards, there are no restrictions on the combination of card types. However in systems with both analog phone base cards and analog trunk daughter cards, combining the two types is recommended as it then provides analog power failure support for one trunk/extension.

Each daughter card is supplied two pre-fitted metal pillars and 3 plastic pillars. Two screws and washers for final attachment of the metal pillars to the base card are also included.

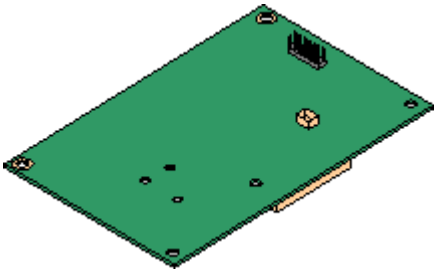
IP Office 500 Analog Trunk Daughter Card



This card can be added to IP Office 500 base cards. It enables that base card to then also support four analog loop-start trunks.

- When fitted to an IP Office 500 Analog Phone 8 base card, the combination supports 1 power failure extension to trunk (loop-start only) connection.
- Maximum: 2 per IP Office 500v2 control unit.

IP Office 500 PRI-U Trunk Daughter Card



This card can be added to an IP Office 500 base card. The card is a universal card that can be configured in software for E1 PRI, T1 robbed bit, T1 PRI or E1R2. The card is available in single and dual port variants.

- Maximum: 4 per IP Office 500v2 control unit.

- The IP Office 500 PRI-U card supports E1, T1 and E1-R2 PRI modes. The Essential Edition - PARTNER® Version system supports 8 unlicensed B-channels on each IP Office 500 PRI-U port fitted. Additional B-channels, up to the capacity of ports installed and PRI mode selected require IP Office 500 Universal PRI (Additional Channels) licenses added to the configuration. These additional channels consume the licenses based on which additional channels are configured as in-service from port 9 of slot 1 upwards. D-channels are not affected by licensing.

2.8 SIP Cards

Essential Edition - PARTNER® Version supports both SIP trunks and SIP extensions. Because there is a wide variety of SIP devices and interpretations of standards, Avaya cannot give any guarantees of support for all SIP extension devices and features.

SIP Trunk Providers

Essential Edition - PARTNER® Version SIP trunks have been successfully tested with the following ITSP SIP providers. This table of providers is a statement of fact and not any form of recommendation from Avaya, nor does it exclude other service providers. Any details of the expected operation and service should be confirmed in writing with the individual service provider.

The SIP Gate service does not support RFC2833 for the sending of DTMF tones. SIP Gate uses the alternate SIP INFO method which is not supported by Essential Edition - PARTNER® Version.

Essential Edition - PARTNER® Version supports SIP trunks using UDP or TCP. For UDP SIP, STUN is supported for NAT Firewall traversal. Otherwise use of a service provider supporting Session Border Control (SBC) is required. TURN, sometimes used for TCP SIP traversal of NAT firewalls, is not supported.

The Essential Edition - PARTNER® Version implementation of SIP conforms to the following SIP RFCs.

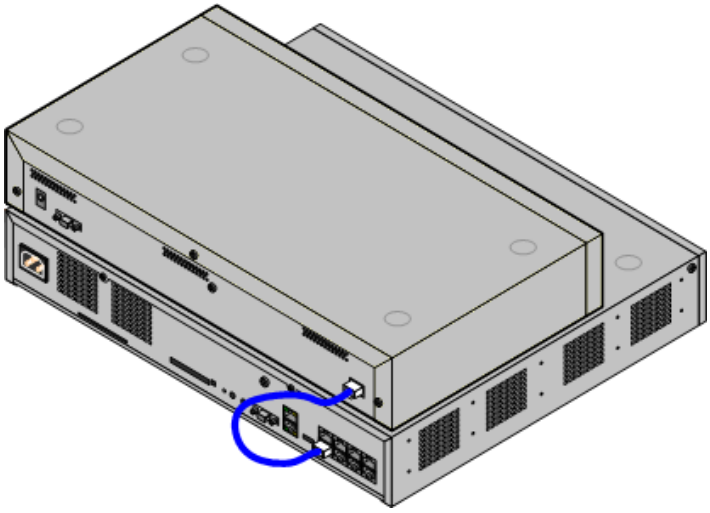
RFRFCC	Description
2833 [7]	RTP Payload for DTMF digits, telephony tones and telephony signals.
3261 [8]	SIP Session Initiation Protocol.
3264 [11]	An Offer/Answer Model with Session Description Protocol (SDP).
3323 [14]	A Privacy Mechanism for SIP
3489 [18]	STUN - Simple Traversal of User Data gram Protocol (UDP) Through Network Address Translators (NATs).
3824 [24]	Using E.164 Numbers with the Session Initiation Protocol (SIP). E.164 is the ITU-T recommendation for international public telecommunication numbering plans.

2.9 External Expansion Module

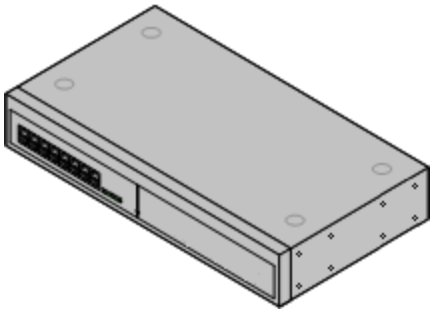
This module can be used to add additional ports to a Essential Edition - PARTNER® Version system. Only one external expansion unit is supported

- The external expansion module is supplied with a blue 1 meter (3'3'') expansion interconnect cable. This cable must be used when connecting to expansion ports on the rear of a control unit.

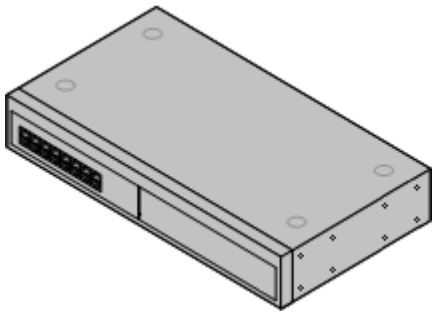
Each module uses an external power supply unit supplied with the module. A locale specific power cord for the PSU must be ordered separately.



- IP Office 500 Digital Station Module
  Provides an additional 16 DS ports for supported Avaya digital phones.



- IP Office 500 Phone Module
  Provides an additional 16 PHONE ports for analog phones.



2.10 Supported Phones

Essential Edition - PARTNER® Version supports the following phones and phone add-ons. Availability may be subject to local restrictions.

- ETR 34, 18, 6, 34D, 18D, 6D,
- 3910, 3920
- 1403, 1408 1416
- All POTS telephones
- BM32 Buttons
- Digital station connects to the Essential Edition - PARTNER® Version via a DS port.

2.11 Dial Plan

Essential Edition - PARTNER® Version has a fixed 2-digit dial plan. The extensions are numbered from 10 to 57 which constitutes a 2 digit dial plan. Short codes are used to access the different features:

- 6 – Call Pickup
- 66 – Group Call Pickup
- 68 – Directed Line Pickup
- 7 – Group access
- 8 – Idle Line Pickup

The dial plan below identifies the valid digit sequences that can be dialled from Essential Edition - PARTNER® Version:

0	Dial Physical Extn [1st Port]
10-57	Station extensions
610-657	Directed call pickup
661-664	Group call pickup (pickup groups 1-4)
6801-6864	Directed line pickup
70	Loudspeaker Page
71-74	Group calling (calling groups 1-4)
76	Modem (RAS port)
771-776	Hunt group (hunt groups 1-6)
777	Voicemail Collect
778	Remote Voicemail access
7801	Auto Attendant access
7811	Record Auto Attendant Morning Greeting
7821	Record Auto Attendant Afternoon Greeting
7831	Record Auto Attendant Evening Greeting
7841	Record Auto Attendant Menu Greeting
7851	Record Auto Attendant Out of Hours Greeting
801-864	Idle line pickup
9	Dial access to Idle Line Preference
*	Voice signal (Intercom only)
*70	Loudspeaker Page + Page Calling Group 1
77901 - 77999	Mobility Features

2.12 Core Software & BIN Files

Each IP Office 500v2 control unit and expansion module contains and runs its own part of the IP Office core software. These parts take the form of **.bin** files (binary files).

The Essential Edition - PARTNER® Version control unit is supplied with a base level of IP Office software that acts as a software loader for upgrading the unit to the required software level. This software loader supports the LAN connection necessary for local PC to IP Office upgrade. See *IP Office Manager Essential Edition - PARTNER® Version Administrator User Guide*.

The .bin files for each IP Office software level are included on the Essential Edition - PARTNER® Version SD Card for that software level. They are installed from that SD as part of the Essential Edition - PARTNER® Version Manager application. Manager can then be used to upgrade the .bin files loaded in the modules within a system.

Updated sets of software and bin files may also be made available through the Avaya support web site. See Web Sites.

- Software Level
  The IP Office core software level is expressed in the form X.Y(Z), for example 2.1(27), where X is the major software level, Y is the minor level and Z is the build number.

The following rules apply to the core software level used by modules within an Essential Edition - PARTNER® Version system and between linked IP Office systems.

- All modules within an Essential Edition - PARTNER® Version should run the same level of core software. Doing otherwise will lead to incorrect operation of the system.

Upgrading
Upgrading is performed using the Upgrade Wizard tool within the Essential Edition - PARTNER® Version Manager application (File | Advanced | Upgrade). It displays the systems it can detect, their existing software level and the levels it has available.

- Check IP Office Technical Bulletins
  Whenever upgrading check the latest IP Office Technical Bulletins for the various IP Office software releases involved before proceeding. These may contain information relating to changes that occurred after this document was completed. Bulletins are available from http://support.avaya.com.
- Multi-Stage Upgrades
  The upgrade path may require several intermediate upgrades. Skipping an intermediate level may lead to incorrect system operation and configuration corruption. Multi-stage upgrades are only necessary for control units. External expansion modules can be upgraded directly between any two levels supported by the module.

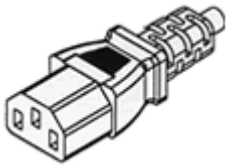
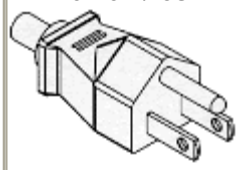
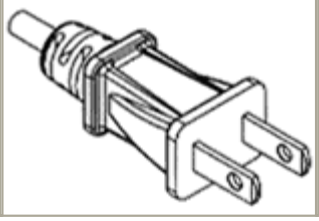
2.13 Power Supplies

Each control unit and expansion module has an internal power supply unit that requires a switched power outlet socket rated at 110-240V ac, 50-60Hz. Connection from that power outlet socket requires an appropriate locale specific power cord which is not supplied with the unit and must be ordered separately.

External expansion modules are supplied with an external power supply unit (PSU). These external power supply units include an integral 1.5 meter lead for connection to the control unit or expansion module. A power cord for connection from the PSU to the power outlet is not included as this varies by locale. The appropriate power cord must be ordered separately or sourced locally.

Power cords must not be attached to the building surface or run through walls, ceilings, floors and similar openings. Installation measures must be taken to prevent physical damage to the power supply cord, including proper routing of the power supply cord and provision of a socket outlet near the fixed equipment or positioning of the equipment near a socket outlet.

For locales not detailed below an appropriate power cord must be obtained locally.

Power Cord Type	Power Outlet Plug Type	Locales	Part number
Earthed Power Cords (IEC60320 C13)  Control Units • IP Office 500. IP Office 500 External Expansion Modules • Digital Station 16. • Phone 16.	NEMA5-15P / CS22.2 No.42 	North, Central and South America.	700289770
	NEMA1-15 	North, Central and South America.	700213390

2.13.1 Power Supply Backup

The use of an Uninterrupted Power Supply (UPS) with any telephone system is recommended. Even at sites that rarely lose electrical power, that power may occasionally have to be switched off for maintenance of other equipment. In addition, most UPSs also provide an element of power conditioning, reducing spikes and surges.

The capacity of UPS systems and the total equipment load the UPS is expected to support are usually quoted in VA. Where equipment load is quoted in Watts, multiply by 1.4 to get the VA load.

The calculation of how much UPS capacity is required depends on several choices.

- What equipment to place on the UPS?
  Remember to include server PCs such as the voicemail. It is recommended that the total load on a new UPS is never greater than 75% capacity, thus allowing for future equipment.
- How many minutes of UPS support is required?
  Actual UPS runtime is variable, it depends on what percentage of the UPSs capacity the total equipment load represents. For example, a 1000VA capacity UPS may only support a 1000VA (100%) load for 5 minutes. This relationship is not linear, the same UPS would support a 500VA (50%) load for 16 minutes. Therefore the lower the percentage of capacity used, the increasingly longer the UPS runtime, typically up to 8 hours maximum. Remember also that for most UPSs the ratio of discharge to full recharge time is 1:10.
- How many output sockets does the UPS provide?
  Multiple UPS units may be required to ensure that every item of supported equipment has its own supply socket.

The web site http://powerquality.eaton.com/AVAYA/default.asp?cx=101 provides a calculator into which you can enter the equipment you want supported on a UPS. It will then display various UPS options. The site uses VA values for typical IP Office systems. However, if more specific values are required for a particular system, the table below can be used to enter values.

Typical IP Office System	VA
IP Office System	230
Individual Equipment	**VA**
Phone 8 Module	17
Typical Server PC	600
Typical Desktop PC	400
Mid Span PSU - 6 ports	150
Mid Span PSU - 12/24 ports	300

Chapter 3.
Installing PARTNER®

3. Installing PARTNER®

This section is intended to assist with the installation of the core components of an Essential Edition - PARTNER® Version telephone system. It describes those components and factors that should be considered for an installation.

- The Essential Edition - PARTNER® Version is a converged voice and data communications system. It should therefore only be installed by persons with telephony and IP data network experience.
- Installers must be trained on IP Office systems. Through its Avaya University (http://www.avaya-learning.com), Avaya provides a range of training courses including specific IP Office Essential Edition - PARTNER® Version implementation and installation training. It also provides certification schemes for installers to achieve various levels of IP Office accreditation. See Training.
- It is the installer's responsibility to ensure that all installation work is done in accordance with local and national regulations and requirements. It is also their responsibility to accurately establish the customer's requirements before installation and to ensure that the installation meets those requirements.
- You should read and understand this documentation before installation. You should also obtain and read the Avaya Technical Bulletins relevant to recent Essential Edition - PARTNER® Version software and hardware releases to ensure that you are familiar with any changes to the equipment and software.

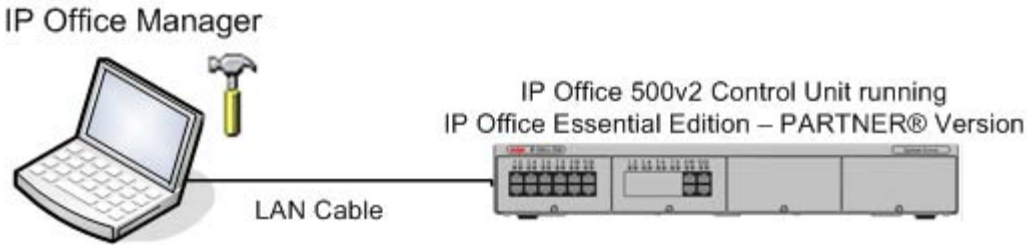
Quick installation instructions are contained in a separate document.

3.1 IP Office Manager

Installation and maintenance of Essential Edition - PARTNER® Version can be performed through telephone system TUI commands described in the Avaya IP Office Essential Edition - PARTNER® Version Admin Guide. However the Manager application provides a comprehensive and easy to use interface for installation and maintenance.

The IP Office Essential Edition - PARTNER® Version Admin Tool (Manager) is an application for viewing and editing an IP Office system configuration. It is a tool meant primarily for system installers and maintainers. Manager runs on a Windows PC and connects to the Essential Edition - PARTNER® Version control unit via the Ethernet LAN connection.

Office manager can be used to prepare user lists, permissions, group memberships and other administration tasks on the telephone system. Manager has its own Administrator User Manual containing comprehensive user instructions.



- CAUTION - Password Change Required
  New IP Office systems use default security settings. These settings must be changed to make the system secure. As a minimum, you should change the default Remote/Administrator Password. Failure to do so will render the Essential Edition - PARTNER® Version system potentially insecure.
- IMPORTANT
  Manager is an off-line editor. It receives a copy of the current configuration settings for the Essential Edition - PARTNER® Version system, from the control unit SD Card. Changes may be made to that copy and it is then sent back to the SD Card for those changes to become active. This means that changes to the active configuration in the system that occur between Manager receiving and sending back the copy may be overwritten. For example this may affect changes made by users through their phone or voicemail mailbox after the copy of the configuration is received by Manager.

Manager is part of the IP Office Admin suite of programs. It is important to note that the software level of IP Office Manager application is 2 higher than the software level of the IP Office system core software with which it is released. For example IP Office Manager 8.0 is released with IP Office 6.0 core software.

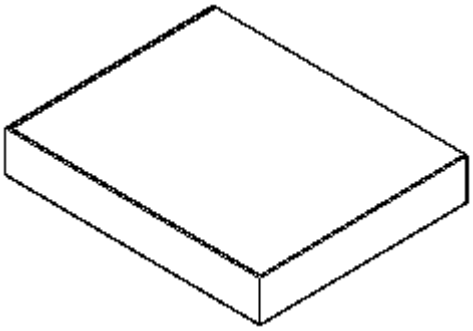
When IP Office Manager is used with Essential Edition - PARTNER® Version, the PC running Manager is connected directly to the IP Office control unit being installed or updated. IP Office Manager detects that a PARTNER® Version is present and automatically starts in its Simplified mode designed to manage Essential Edition - PARTNER® Version.

It is important to note that the software level of IP Office Manager application is 2 higher than the software level of the IP Office system core software with which it is released. For example IP Office Manager 8.0 was released with IP Office 6.0 core software.

3.2 Getting Started

This section describes tasks that must be planned and executed before commencing installation of Essential Edition - PARTNER® Version.

3.2.1 Unpacking



Objective - To check that the correct equipment has been supplied and that no damage has occurred during transit.

Use the following procedure when unpacking any equipment supplied by Avaya or an Avaya reseller or distributor.

Information Required

- Equipment Checklist.
  Draw up an installation checklist of the parts and equipment expected.

Procedure

- Check for Package Damage.
  Before unpacking any equipment, check for any signs of damage that may have occurred during transit. If any damage exists bring it to the attention of the carrier.
- Check the Correct Parts Have Been Delivered.
  Check all cartons against the packing slip and ensure that you have the correct items. Report any errors or omissions to the equipment supplier.
- Retain All Packaging and Documentation.
  While unpacking the equipment, retain all the packaging material. Fault returns are accepted only if repackaged in the original packaging. If performing a staged installation, the original packaging will also assist when repacking equipment to be moved to the final install site.
- Ensure that Anti-Static Protection Measures are Observed.
  Ensure that anti-static protection measures are observed at all times when handling equipment with exposed electrical circuit boards.
- Check All Parts.
  Visually inspect each item and check that all the necessary documentation and accessory items have been included. Report any errors or omissions to the dealer who supplied the equipment.
- Check All Documentation.
  Ensure that you read and retain any documentation included with the equipment.

3.2.2 Environmental Requirements

Before you begin the physical installation of the system, you must check that all environmental factors are within the acceptable ranges. The planned location must meet the following requirements. If installing into a rack system, these are requirements for within the rack:

- Temperature: 0°C to 40°C / 32°F to 104°F.
- Humidity: 10% to 95% non-condensing.
- Check there are no flammable materials in the area.
- Check there is no possibility of flooding.
- Check that no other machinery or equipment needs to be moved first.
- Check that it is not an excessively dusty atmosphere.
- Check that the area is unlikely to suffer rapid changes in temperature and humidity.
- Check for the proximity of strong magnetic fields, sources of radio frequency and other electrical interference.
- Check there are no corrosive chemicals or gasses.
- Check there is no excessive vibration or potential of excessive vibration, especially of any mounting surface.
- Check that where telephones are installed in another building, that the appropriate protectors and protective grounds are fitted (see Out of Building Telephone Installation).
- Check there is suitable lighting for installation, system programming and future maintenance.
- Check that there is sufficient working space for installation and future maintenance.
- Ensure that likely activities near the system will not cause any problems, e.g. access to and maintenance of any other equipment in the area.

- Where ventilation holes are present on any of the Essential Edition - PARTNER® Version units, those holes should not be covered or blocked.
- The surface must be flat horizontal for free-standing or rack mounted installations.

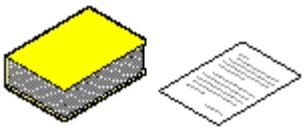
Wall Mounting
In additional to the requirements above, the following are applicable to Essential Edition - PARTNER® Version units that support wall mounting.

1. Units must only be mounted onto permanent wall surfaces.
2. The surface must be vertical and flat.
3. Orientation of the unit must be as shown in the section on IP Office 500 Wall Mounting.
4. The appropriate Avaya wall mounting kits must be used.

IMPORTANT SAFETY INSTRUCTIONS
When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.

3.2.3 Read the Documentation



Ensure that you have read this manual in full before starting installation. Also include the installation documentation for any other equipment and applications being installed as part of the IP Office system.

- IP Office Technical Bulletins
  Ensure that you have obtained and read the IP Office Technical Bulletin relating to the IP Office software release which you intend to install on the Essential Edition - PARTNER® Version. This bulletin will contain important information that may not have been included in this manual. IP Office Technical Bulletins are available from the web sites listed below.

Other IP Office Installation Manuals
The following components of IP Office are outside the range of a basic IP Office installation. They are covered by separate installation and configuration documentation. If those components are to be part of the Essential Edition - PARTNER® Version system installation, that documentation should be obtained, read and understood prior to the installation.

Information Web Sites
IP Office documentation is available from the following web sites.

- Avaya Support - http://support.avaya.com
  Contains documentation and other support materials for Avaya products including IP Office. Copies of the IP Office CD images are available from this site and updated core software .bin files.
- Avaya IP Office Knowledge Base - http://marketingtools.avaya.com/knowledgebase
  Access to an on-line regularly updated version of the IP Office Knowledge Base. Currently this link is only available to Avaya Business Partners while running an ARA account (Avaya Remote Access) connection.

3.2.4 Space Requirements

IP Office 500v2 control unit and modules are designed to be installed either in a free-standing stack or into a 19" rack system. Rack installation requires a rack mounting kit for each control unit and expansion module.

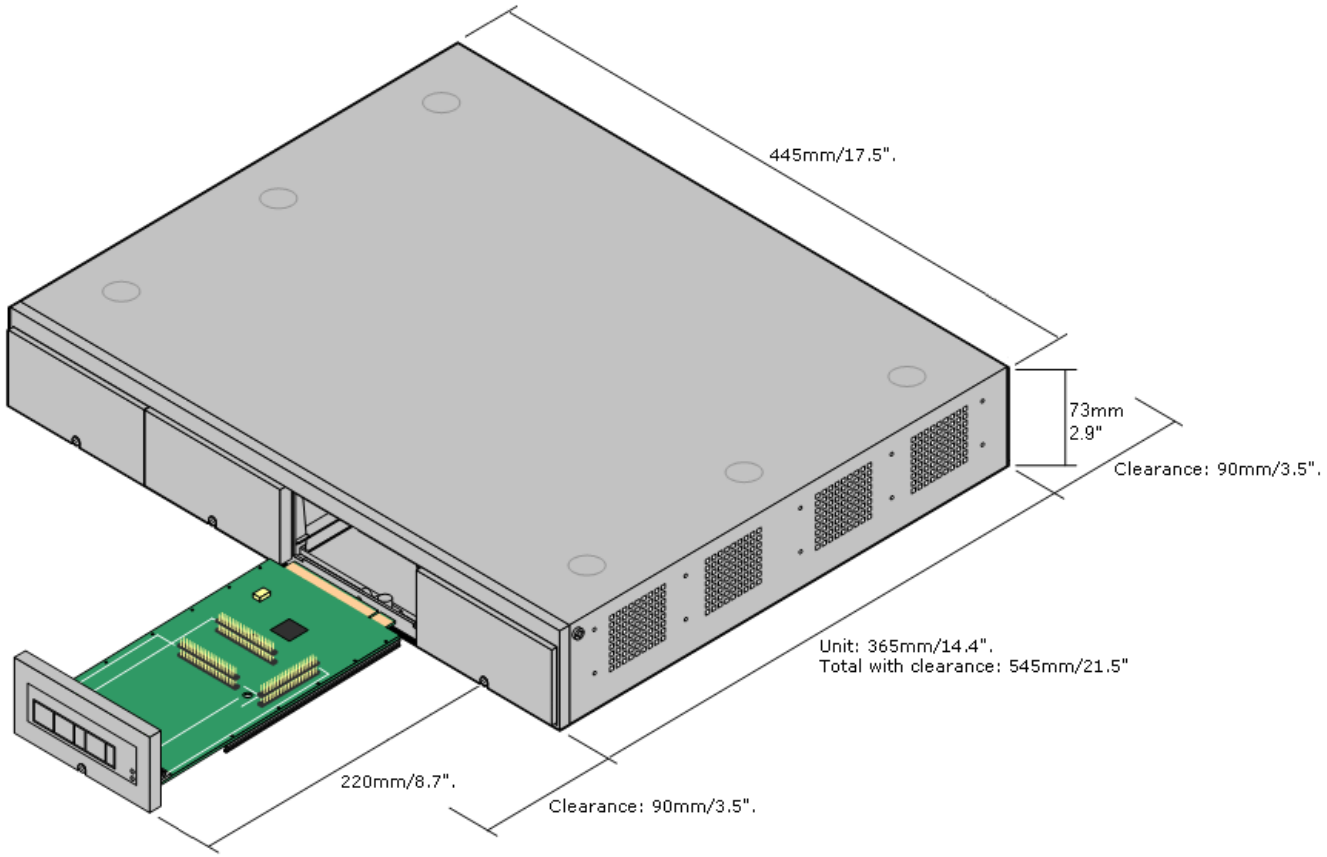
Cable Clearance
Clearance must be provided at the front and rear of all modules for cable access, connections and insertion/removal of the SD card.

- Allow a minimum clearance of 90mm (3.5 inches).

- Additional Clearance
  Care should be taken to ensure that the positioning of the modules does not interrupt air flow and other factors that may affect environmental requirements. This is especially important on IP Office 500 control units which have ventilation slots at the side.

- Cable Access
  Power cords must not be attached to the building surface or run through walls, ceilings, floors and similar openings. Installation measures must be taken to prevent physical damage to the power supply cord, including proper routing of the power supply cord and provision of a socket outlet near the fixed equipment or positioning of the equipment near a socket outlet.

When wall mounted, a clearance of 500mm is required on all sides. The ventilation slots on the rear and sides should not be covered or blocked.



3.2.5 Tools and Parts Required

This section outlines the tools and miscellaneous parts likely to be required during the installation and setup of an Essential Edition - PARTNER® Version system. Other tools may also be required.

Tools Required

1. Pozidrive No. 1 screwdriver for removal of module covers.
2. Cutter for cable ties.
3. Pozidrive No. 4 screwdriver.
4. Flat blade screwdriver, medium size
5. Wrist-strap for anti-static grounding or similar.
6. PC running Windows XP/2003.
   During the Staging Installation later in this manual, we recommend that you use a Laptop PC with IP Office Manager Essential Edition - PARTNER® Version installed using a directly connected LAN cable. This will enable you to make any changes to the basic configuration, system configuration, and set up user lists.
7. Indelible marker for cable labeling.

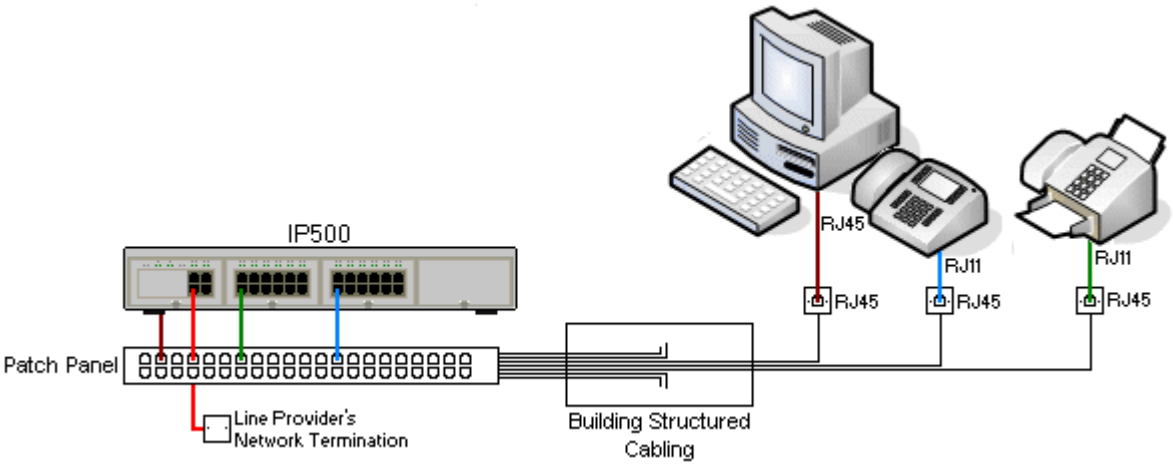
Parts Required

1. Cable ties.
2. Cabling labels.
3. Technical Bulletins
   Each Essential Edition - PARTNER® Version software release is normally accompanied by a Technical Bulletin detailing special installation requirements, known issues, etc. Various software releases and their associated Technical Bulletins can also be obtained from http://support.avaya.com.

3.2.6 Cabling and Cables

The Essential Edition - PARTNER® Version system is designed primarily for use within an RJ45 structured cabling system using CAT3 unshielded twisted-pair (UTP) cabling and RJ45 sockets.

A structured cabling system is one where cables are run from a central RJ45 patch panel in the communications/data room to individual RJ45 sockets at user's desk. All wires in each cable between the patch panel and the desk socket are connected straight through. This arrangement allows devices connected at the patch panel to be swapped to match the type of device that needs to be connected at the user socket. For example, making one user socket a phone port and another user socket a computer LAN port, without requiring any rewiring of the cables in between.



- Traditional IDC Punchdown Wiring Installations
  Where necessary, the far end RJ45 plug can be stripped from IP Office cables and wired into traditional wiring systems using punch-block connectors. This type of installation should be performed by an experienced wiring technician.
- Trunk Connections
  The majority of IP Office trunk ports use RJ45 connectors for acceptance of an RJ45-to-RJ45 cable. However, connection at the line providers end may require use of a different plug type in order to match the line providers equipment.
- RJ11 Phone Connectors
  Many phones use RJ11 sockets and are supplied with RJ11-to-RJ11 cables. RJ11 plugs can be inserted into RJ45 sockets and in many case the connection will work. However this is not recommended or supported as the connection lock is not truly positive and may become disconnected. An RJ45-to-RJ11 cable is available for these connections.

Standard IP Office Cables

The following are Avaya standard cables available for use with IP Office systems. The maximum length is applicable if the standard Avaya cable is replaced with an alternative cable.

Cable	Description	Part number	Standard Length	Maximum Length
9-Way DTE Cable	Connects to control unit RS232 DTE port. 9-Way D-type plug to 9-way D-type socket.	–	2m/6'6''.	2m/6'6''.
Structured Cabling DS Line Cable	Connects from RJ45 sockets to RJ11 socketed DS and analog phones.	700047871	4m/13'2''.	See table below.
PRI Trunk Cable	Connects PRI trunk ports to the line providers network termination point. RJ45 to RJ45. Red.	700213440	3m/9'10''.	–

Expansion Interconnect Cable	Connects the control unit to expansion modules (except WAN3 modules). RJ45 to RJ45. Blue.	700213457	1m/3'3''.	1m/3'3''.
LAN Cable	Connects from IP Office LAN ports to IP devices. RJ45 to RJ45. Grey.	700213481	3m/9'10''.	100m/328'.

The table below details the maximum total cable distances for DS and analog extensions using different cable types.

Telephone	Unshielded Twisted-Pair (UTP) - 50nf/Km			CW1308
	AWG22 (0.65mm)	AWG24 (0.5mm)	AWG26 (0.4mm)	
1400 Series	1000m/3280'.	1000m/3280'.	400m/1310'.	400m/1310'.
T3 Series (Upn)	1000m/3280'.	1000m/3280'.	400m/1310'.	–
Analog Phones	1000m/3280'.	1000m/ 3280'.	400m/1640'.	800m/2620'.

3.2.7 Grounding

Use of ground connections reduces the likelihood of problems in most telephony and data systems. This is especially important in buildings where multiple items of equipment are interconnected using long cable runs, for example phone and data networks.

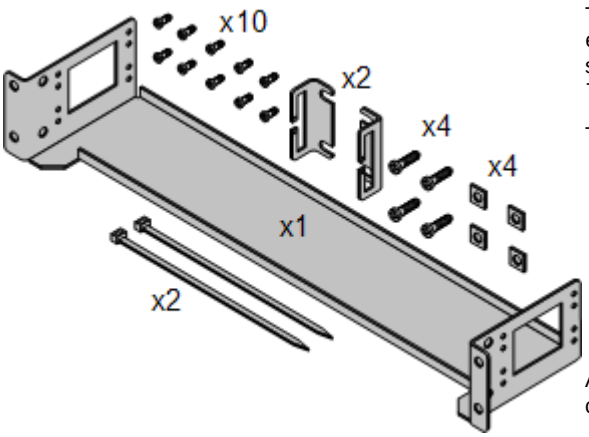
All IP Office control units and external expansion modules must be connected to a functional ground. In some cases, such as ground start trunks, in addition to being a protective measure this is a functional requirement for the equipment to operate. In other cases it may be a locale regulatory requirement and or a necessary protective step, for example areas of high lightning risk.

- ⚠ WARNING
  During installation do not assume that ground points are correctly connected to ground. Test ground points before relying on them to ground connected equipment.

The ground point on IP Office control units and external expansion modules are marked with a ⏚ or ⏚ symbol. Ground connections to these points should use a 14 AWG solid wire with either a green sleeve for a functional ground or green and yellow sleeve for a protective ground.

- Additional protective equipment
  In addition to grounding, additional protective equipment will be required in the following situations. Refer to "Out of Building Telephone Installations".
  - On any Digital Station or Phones external expansion module connected to an extension located in another building.

3.2.8 Rack Mounting



The IP Office 500v2 control unit and IP Office 500 external expansion units can be rack mounted if required into 19-inch rack systems. This requires an IP Office 500 Rack Mounting Kit (SAP 700429202) for each unit.

The kit includes:

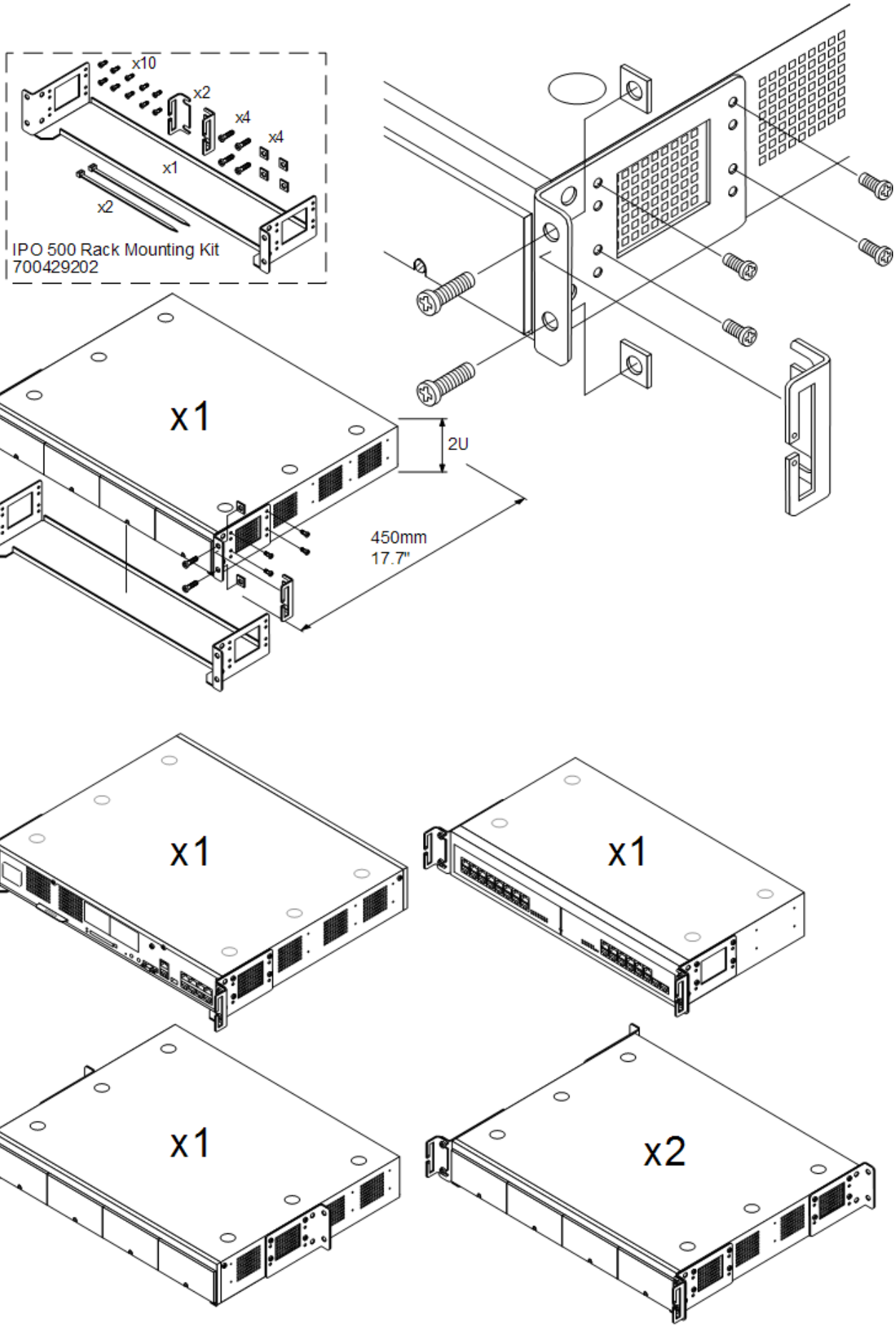
- A rack mounting bracket and screws for attachment of the bracket to the unit
- Nuts and bolts for rack attachment.
- Brackets and cable ties for cable tidying.

As indicated in the diagram following, the rack mounting bracket can be used in several positions on the unit.

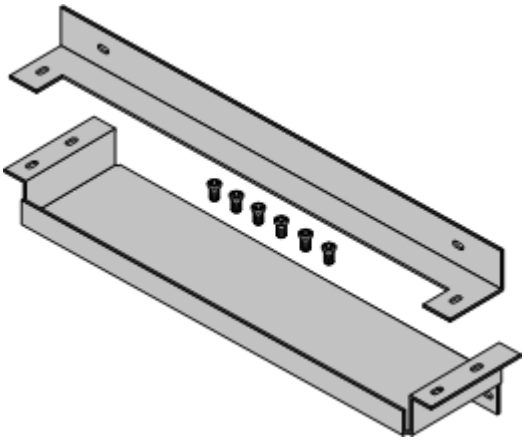
Environmental Requirements

In addition to the existing environmental requirements for an IP Office system, the following additional factors must be considered when rack mounting a unit:

1. Rack Positioning - Ensure compliance with the rack manufacturers safety instructions. For example check that the rack legs have been lowered and fixing brackets have been used to stop toppling.
2. Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
    - Operating Temperature: 0°C (32°F) to 40°C (104°F).
    - Operating Humidity: 10% to 95% non-condensing.
3. Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised. Proper ventilation must be maintained. The side ventilation slots on the IP Office 500 control unit should not be covered or blocked.
4. Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
5. Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over-current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
6. Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).
7. ⚠ Only the screws (M3 x 6mm) provided with the mounting kit should used to attach the brackets to the control unit.


x10
x2
x4
x4
x1
x2
IPO 500 Rack Mounting Kit
700429202
x1
2U
450mm
17.7"
x1
x1
x1
x2

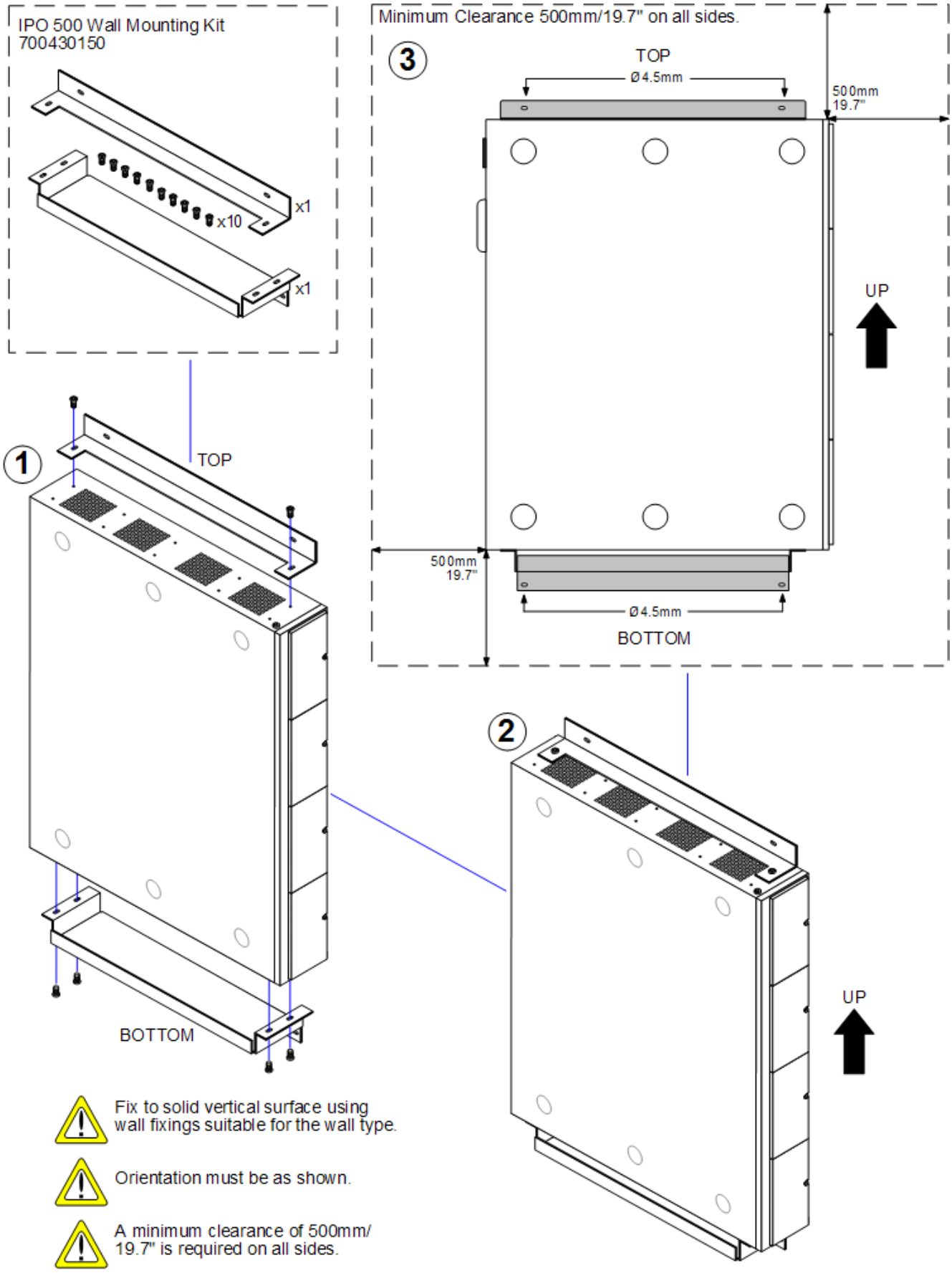
3.2.9 Wall Mounting



The IP Office 500v2 control unit can be wall mounted. This requires an IP Office 500 Wall Mounting Kit (SAP 700430150) plus additional 4.5mm fixtures and fittings suitable for the wall type. The wall mounting kit includes two brackets, one top and one bottom.

Environmental Requirements
In addition to the existing environmental requirements for an IP Office system, the following additional requirements apply when wall mounting a unit:

- ⚠ The wall surface must be vertical, flat and vibration free.
- ⚠ A minimum clearance of 500mm (19.7 inches) is required on all sides.
- ⚠ The unit must be orientated as shown when mounted. That is with the base card slots facing right when viewed from in front of the unit.
- ⚠ The brackets must be used as shown, with the deeper tray-like bracket used at the bottom of the wall mounted control unit.
- ⚠ Only the screws (M3 x 6mm) provided with the mounting kit should used to attach the brackets to the control unit.

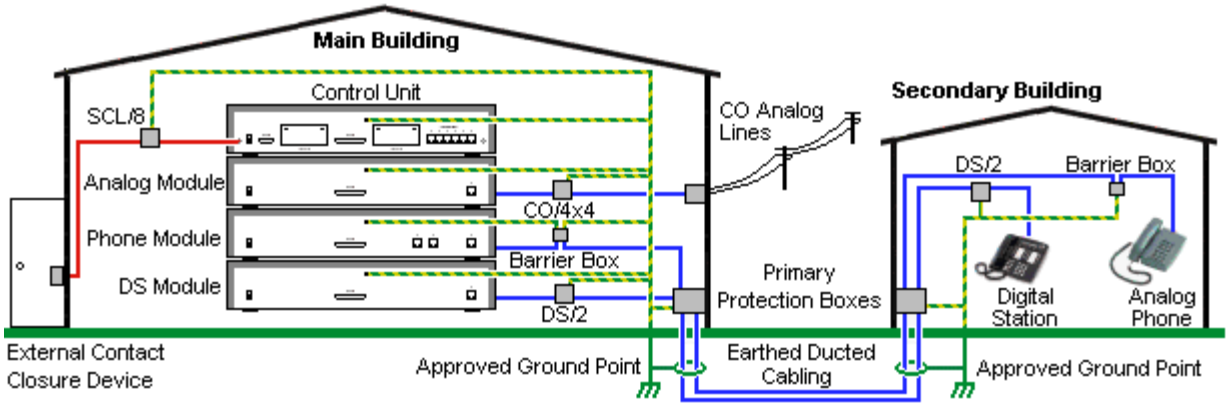


- ⚠ The brackets must be used as shown, with the deeper tray-like bracket used at the bottom of the wall mounted control unit.
- ⚠ Only the screws (M3 x 6mm) provided with the mounting kit should used to attach the brackets to the control unit.

3.2.10 Lightning Protection/Out-of-Building Connections

The following are the only supported scenarios in which wired extensions and devices outside the main building can be connected to the IP Office system. In these scenarios, additional protection, in the form of protective grounding and surge protectors, must be fitted.

- ⚠ The fitting of additional protection does not remove the risk of damage. It merely reduces the chances of damage.



Cabling Requirements

- Cables of different types, for example trunk lines, extensions, ground and power connections, should be kept separate.
- All cabling between building should be enclosed in grounded ducting. Ideally this ducting should be buried.
- A Primary Protection Box must be provided at the point where the cables enter the building. This should be three point protection (tip, ring and ground). Typically this would be gas tube protection provided by the local telephone company. The ground wire must be thick enough to handle all the lines being affected by indirect strike at the same time.

Connection Type	Protection Device Type	Requirement
DS Phone Extensions ⚠ Digital Station Expansion module DS ports only.	ITWLinx towerMAX DS/2 Supports up to 4 connections. (This device was previously referred to as the Avaya 146E).	• Connection from the expansion module to the phone must be via a surge protector at each end and via the primary protection point in each building. • The IP Office expansion module and control unit and IROB devices must be connected to the protective ground point in their building. • The between building connection must be via earthed ducting, preferable underground. The cable must not be exposed externally at any point.
Analog Phone Extensions ⚠ Phones Expansion module (POT or PHONE) ports only.	IP Office Barrier Box Supports a single connection. Maximum of 16 on any expansion module.	
Analog Trunks	ITWLinx towerMAX CO/4x4 Supports up to 4 two-wire lines. (This device was previously referred to as the Avaya 146C).	For locations where the risk of lightning strikes is felt to be high, additional protection of incoming analog trunks is recommended.
External Output Switch	ITWLinx towerMAX SCL/8 (This device was previously referred to as the Avaya 146G)	Connections from an IP Office Ext O/P port to an external relay device must be via a surge protector.

The towerMAX range of devices are supplied by ITWLinx (http://www.itwlinx.com).

3.3 Install Overview

Essential Edition - PARTNER® Version is an *out of the box* installation and is meant to work correctly when it is switched on, without requiring any setting up or pre configuration. The efficiency of this automatic procedure is simplified and guaranteed by following a few basic rules in connecting up cable groups and populating the card slots of the control unit as follows:

- Insert base cards working from left to right and do not leave unoccupied slots between cards.
- Apply simple housekeeping rules to cables by tying them in associated and clearly labeled bundles.
- Route cables carefully so that they do not intrude the working area or create a hazard

The basic installation procedure described in the following sections is as follows:

1. Equip the control unit with base cards, pre fitted where necessary with daughter cards.
2. Insert the supplied SD card.
3. Connect a laptop PC that has IP Office Manager 6 or above, to the control unit (Item 5 in tools).
4. Switch ON the control unit. Essential Edition - PARTNER® Version automatically "sniffs" the connected system and contacts the laptop. To do this, The control unit initializing firmware sends its configuration .ini files to the SD card where they are checked against the current versions on the card. The control unit performs a boot up sequence that varies according to what is detected during the discovery phase.
5. Switch ON the laptop. Office Manager on the PC displays the administration home screen which identifies basic system components and system settings.
6. Plug in telephone handsets.
7. Use Manager to complete system configuration.

3.4 Card Installation

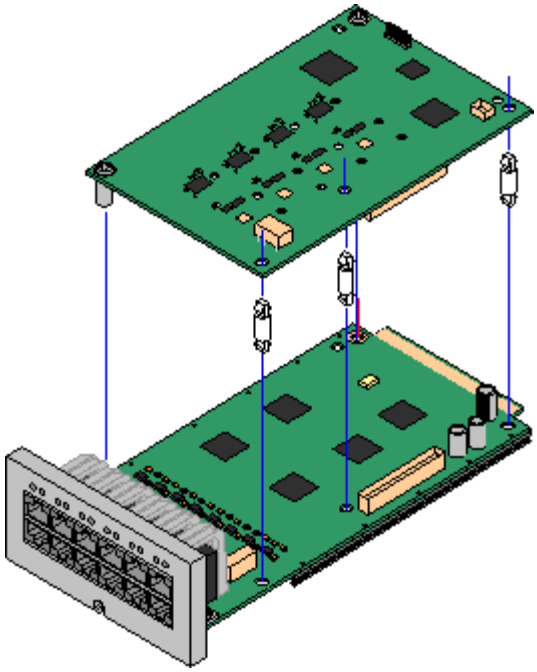
This section describes in order, the procedures to equip an IP 500v2 control unit for use with Essential Edition - PARTNER® Version.

Warnings

- Correct anti-static protection steps should be taken before handling circuit boards.
- During this process power to the IP Office control unit must be switched off and disconnected.

IP500 Trunk Daughter Card Preparation

IP500 trunk daughter cards should be fitted to any base card requiring them.



Parts and Equipment Required

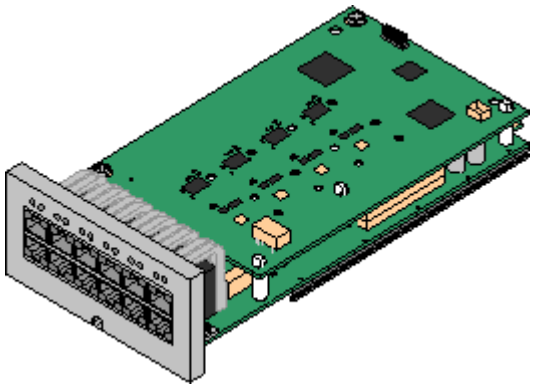
1. IP500 base cards
2. IP500 Trunk cards if required
3. Stand Off Pillars, these are supplied with the trunk daughter card.

Tools Required.

1. 5mm Flat-blade screwdriver.
2. Anti-static wrist strap and ground point.

Procedure:

1. Check that correct cards have been supplied.
2. Ensure that you are wearing an anti-static wrist strap connected to a suitable ground point.
3. On the base card identify the position of 3 holes for the plastic pillars for the daughter card. These are along the same edge as the card connector.
4. Fit the stand off pillars to the base card.
5. If there is a clip-on metal shield over the connector block on the base card, remove it.
6. Using minimal force and checking that the pins are correctly located, push the daughter trunk card down onto its connector block and the stand off pillars.
7. Check that the card connector has snapped into position.
8. Using the washers and screws provided, secure the metal stand off pillars to the base card.



9. A set of labels are supplied with the trunk daughter card. Fit the appropriate label to the front of the base card.
10. Prepare any other base cards. Then proceed to inserting the base cards.

Base Card Installation

Having prepared each base card by adding any daughter cards required, the base cards can be inserted into the control unit.

Warnings

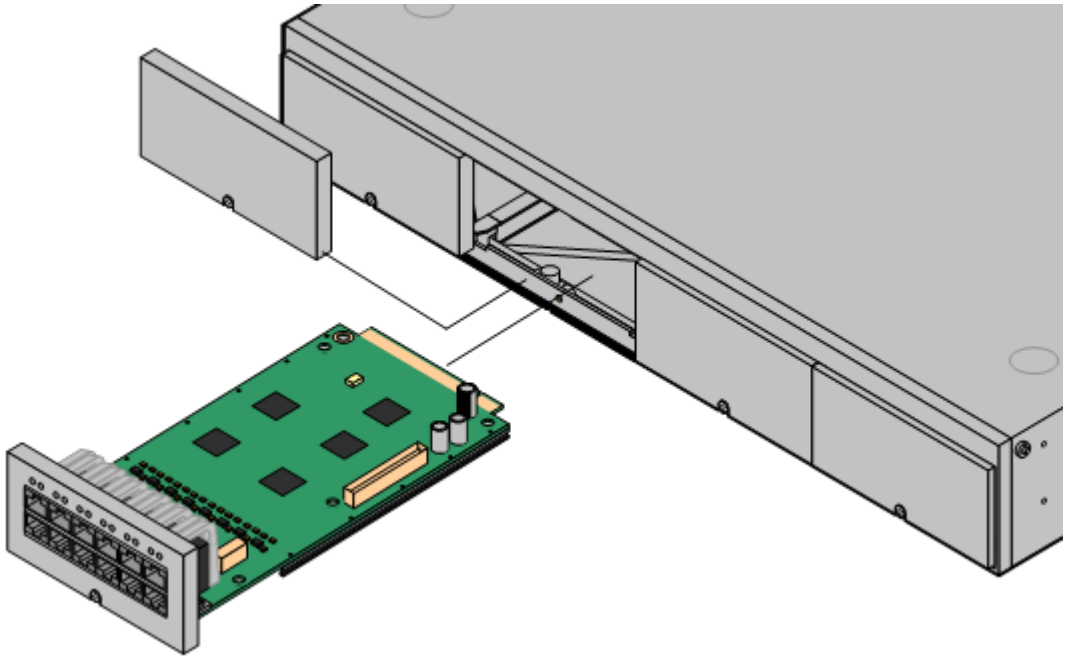
- Correct anti-static protection steps should be taken before handling circuit boards.
- During this process power to the IP Office control unit must be switched off and disconnected.

Tools Required.

- ☐ 5mm Flat-blade screwdriver.
- ☐ Anti-static wrist strap and ground point.

Procedure:

1. Using a flat-bladed screwdriver, remove the covers from the slots on the front of the control unit. This cover is no longer required but should be retained until installation has been completed.



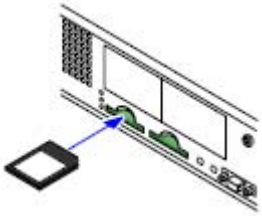
2. Allowing the card to rest against the bottom of the slot, begin sliding it into the control unit. When half inserted, check that the card rails have engaged with the slot edges by trying to gently rotate it. If the card does rotate remove it and begin inserting it again.
3. The card should slide in freely until almost fully inserted. At this point apply pressure at the base of the front of the card to complete insertion into its connector block.
4. Using a flat-bladed screwdriver secure the base card.

General Notes

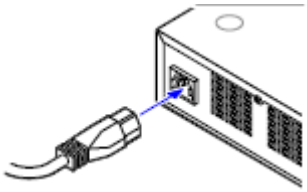
- Cards can be fitted in any order into any available slots. The only exception is the IP500 4-Port Expansion card which can only be installed in right hand slot 4.
- It is recommended that cards are fitted from left to right.
- There are restrictions to the number of supported cards of some types. When such a limit is exceed, the right-most card of that type will not function.
- Ensure that you use the labels supplied to identify the card fitted into the control unit.

3.5 Starting

⚠ Do not begin this procedure until all cards are installed in the control unit.



With power still off, insert the SD card into the first rear panel slot (System SD) of the control unit.



Apply power to the control unit.

Check that the orange LED lamp on the IP Office LAN port is on. The green LED may also be flickering as it indicates traffic across the LAN connection

As the control unit goes through its start-up cycle, make the following checks:

1. The CPU LED changes to green

When power to the control unit is switched on, the normal sequence for the CPU LED is as follows.

a) Steady Red for 3 seconds

b) Off for 10 seconds

c) Flashing alternate red/green for 4 seconds.

d) The LED should be steady green following successful start up. Note that the IP Office 500 cards on the front of the control unit may still be going through their own start up process.

- Flashing RED
  A flashing red CPU LED at this stage indicates an error. The most likely cause is a missing or loose SD card.

2. The System SD LED changes to green

3. The LAN connection LED flashes and then settles to steady green

4. Card module front lamps light randomly but after approximately 30 second the No.1 lamps flash together once every 5 seconds

Connect the laptop via an R45 lead to the LAN socket on the control unit rear panel.

Switch on the laptop and start the Manager application. It should automatically recognize the control unit and the software controlling it.

IP Office Manager can now be used to configure the extensions and trunk lines. See IP Office Essential Edition - PARTNER® Version Administration Toll User Manual.

3.6 Connections

If the site already has a patch panel for all outside lines and extensions, you should be able to use the existing wiring to install the system hardware and connect telephones to the system yourself.

During control unit startup

- Extensions and Users
  A user is automatically created for each physical extension port detected in the system. Users are assigned extension numbers starting from 201. User names take the form Extn201, Extn202, ...
- Hunt Group
  A single hunt group 200 called Main is created and the first 10 users are placed into that hunt group as members.
- Incoming Call Routes
  Two default incoming call routes are created. Voice calls are routed to the hunt group Main.

Installing Telephones

After you have installed the IP Office 500v2 control unit and have connected the line and extension cords, you are ready to install the telephones. Installing the telephones includes assembling, testing and connecting, the telephone. As desired, you also can connect an Intercom Autodialer to certain telephones

Assembling PARTNER® Version Telephones

All PARTNER telephones are shipped with a stand for either desk-mounting or wall-mounting the telephone. For other telephones, see the instructions that are provided with the telephone.

Gather the line and extension cords hanging from the control unit and twist-tie or wire-wrap them.

Testing the modules

1. Test the base card modules by doing the following:
   a. Plug a system telephone into the first port on each module.
   b. Press the line button on the telephone for each outside line and listen for a dial tone.

Connecting handsets

2. For telephone systems that are based on a patch (intermediate) connection system:
   a. Connect line cords to the line jacks on the modules.
   b. Connect the free end of each line cord to the appropriate telephone network interface jack
3. Fill each module before moving to the next module to the right

As each handset is connected any necessary software it contains is automatically checked and updated as necessary.

3.7 Final Actions

You may be required to compile calling lists, build groups and allocate permissions etc. before leaving the customer premises. This depends on arrangements made between your local office and the customer. If required, use Manager to create any lists. Changes to the basic Essential Edition - PARTNER® Version configuration, setting up trunks, adding licenses etc. are detailed in the Avaya IP Office <%SHORTNAME%> Administrator Tool User Guide identified in the Introduction.

As you use Manager to make changes to the <%SHORTNAME%> setup, you are prompted to save or discard changes you have made before leaving any administration window to go on to another task. However, you should remember that you are accumulating these changes in a COPY of the control unit configuration file which must be saved back to the SD card before changes are effective. Similarly, system changes such as plugging in handsets during this time are recognized by the <%SHORTNAME%> system control unit but are undetected by Manager which is working with a copy of the configuration file. Avaya recommend that whilst using Manager you save the configuration file at frequent intervals to ensure the working copy and Manager copy of the configuration file remain as compatible as possible.

Do not leave the Manager application open for long periods and particularly when it is not being used.

Check system operation and gather all packing materials for disposal.

If appropriate, obtain sign-off signature.

Chapter 4.
System Component Details

4. System Component Details

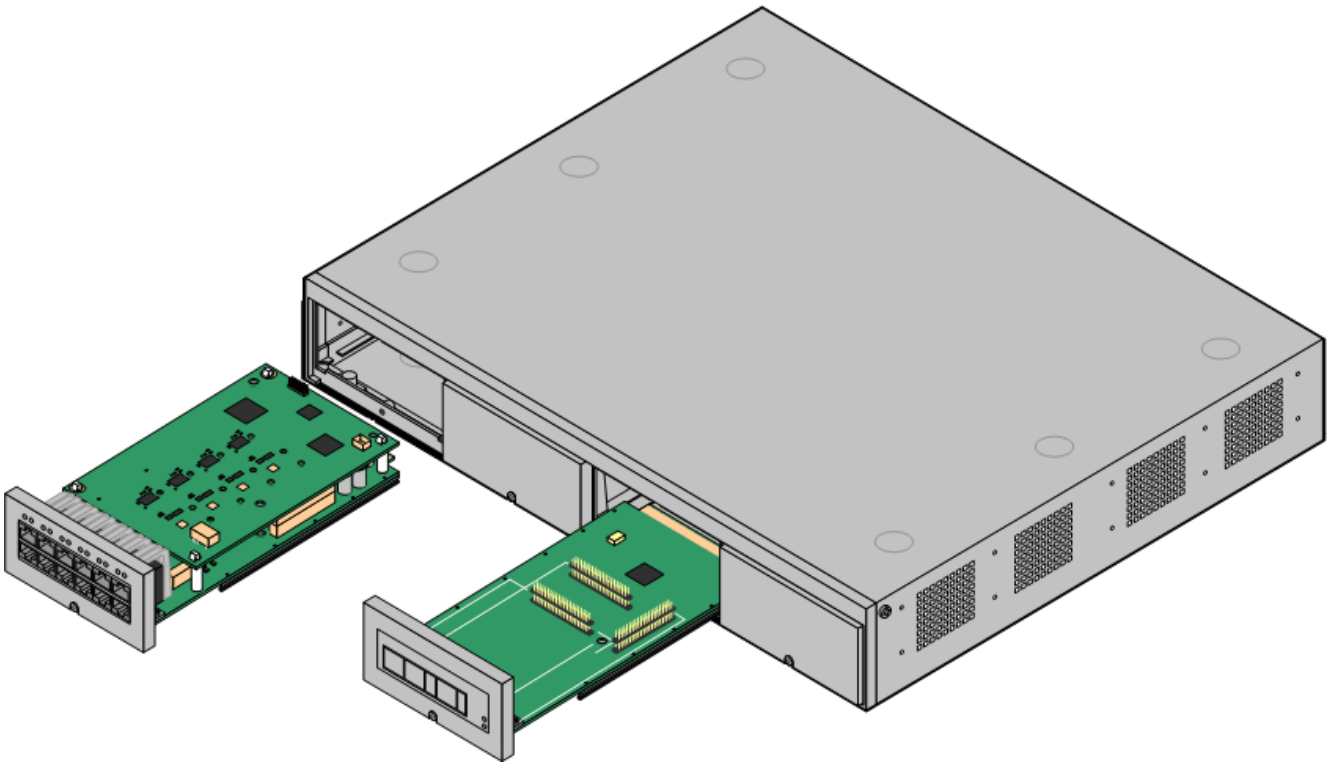
This section contains detailed descriptions of each of the component parts of Essential Edition - PARTNER® Version.

4.1 Control Unit

The base item of the IP Office system is the system server or control unit. It stores the system configuration and controls system operation. The Essential Edition - PARTNER® Version system uses the IP Office 500v2 model R6.0 control unit.

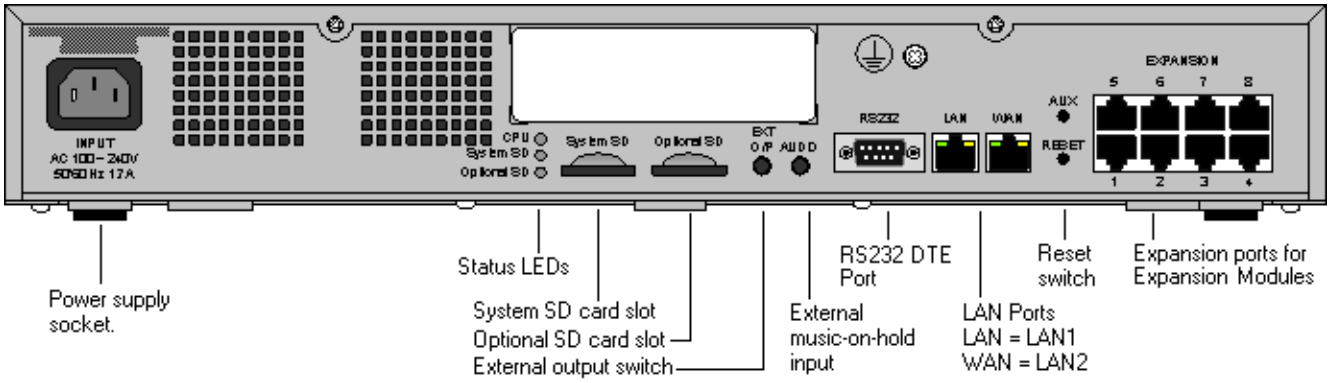
A control unit can be customized by adding various internal cards such as trunk cards. An external expansion module can be also be connected.

The slots are numbered 1 to 4 from left to right. They can be used in any order. However if the capacity for a particular type of card is exceeded, the card in the rightmost slot will be disabled. The unit must not be used with uncovered slots.



Feature	Capacity
Maximum Extensions	Up to 48 extension ports of which there may be a maximum of 18 ETR ports.
Conference Parties	10 as standard with no silence suppression.
Trunks Cards	Any combination of IP Office 500trunk daughter cards and up to 2 IP400 trunk cards.
Voicemail Channels	Maximum 2, expandable to 6 subject to available licenses.
Software Level	• IP Office core software level 6.0 minimum. • Bin file = ip500v2.bin.
Power Supply	Internal power supply unit.
Mounting	Free-standing, rack mounted (requires IP Office 500Rack Mounting Kit) or wall mounted (requires IP Office 500Wall Mounting Kit).
Dimensions	Width: 445mm/17.5". Depth: 365mm/14.4". Height: 73mm/2.9"/2U. Clearance: 90mm minimum all sides, 220m at front. 500mm all side when wall mounted.
Memory	Maximum configuration file size: 2048KB.

4.1.1 Rear Connections



Only Port 1 of the extreme right hand expansion ports should be used.

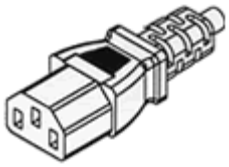
Ports	Description
AUDIO	3.5mm Stereo jack socket. Used for external music on hold source input.
AUX	If pressed during a restart of the control unit, the control unit skip booting from the */primary* folder on the System SD card. If pressed for between 5 and 10 seconds when a system is running, the control unit will shutdown for 10 minutes.
CPU	Indicates the status of the control unit. • Alternate red/green = Starting up. • Green on = Okay. • Red on = No software. • Flashing Red = Error/Shutdown.
EXPANSION	RJ45 socket. Used for direct connection to external expansion modules using the Expansion Interconnect cable supplied with the expansion module.
EXT O/P	3.5mm Stereo jack socket. Used for switching external relay systems such as door entry controls. The port contains two independent switches controlled by the IP Office.
INPUT	AC power input port.
LAN	RJ45 socket. With the WAN port forms a managed layer 3 Ethernet switch. The ports are full-duplex 10/100Mbps auto-sensing, MDI crossover ports.
Optional SD	Used for the Optional SD card. The LED is used in the same way as for the System SD *(see below)*.
RESET	This switch is used to restart the IP Office, optionally erasing the configuration and or the core software in the process. See table below.
RS232	9-Way D-Type socket. Used for system maintenance.
System SD	Used for the System SD card,. The LED is used as follows. • Off = Card shutdown. • Green on = Card present. • Green flashing = Card in use. • Orange steady = Reset imminent. • Red flashing = Card initializing or shutting down. • Red fast flashing = Card full • Red steady = Card failure/wrong type.
WAN	Not used in Essential Edition - PARTNER® Version
⏚	Used for connection of a function or protective ground. Use of a ground for all systems is recommended and for some locales may be a regulatory requirement.

Reset button.

Pressing the button while the control unit is starting up will pause the start up until the button is released. The effect of pressing the button during normal operation will depend on how long the button is pressed and is indicated by the CPU LED.

Press Duration (seconds)	CPU LED	Action	Summary
0 to 5.	Off	None	None.
5 to 10.	Orange	Reboot When Free	Reboot when free with new incoming/outgoing call barring. A reboot using the reset button is recorded in the Audit Trail.

Press Duration (seconds)	CPU LED	Action	Summary
10 to 30.	Flashing orange	Erase Configuration/ Immediate Reboot	Erase the configuration, alarm log and audit trail. Immediate reboot without waiting for active calls to end.
30 to 40.	Red	Erase All.	Erase configuration, alarm log and core software.
Over 40.	Flashing green	None	None.

Name	Description	Country	Part number
IPO 500 V2 Base Unit	IP Office 500 V2 Base Unit		700476005
Avaya SD Memory Card	IPO System SD Card Partner® Version		700479728
IEC60320 C13 Earthed Power Cord 	CEE7/7	Europe	700289762
	BS1363	United Kingdom	700289747
	NEMA5-15P	America	700289770
IP Office 500Rack Mounting Kit	IP Office 500Rack Mounting Kit		700429202
IP Office 500Wall Mounting Kit	IP Office 500Wall Mounting Kit		700430150
IP Office 500Blanking Plate Kit	IP Office 500Blanking Plate Kit		700429194

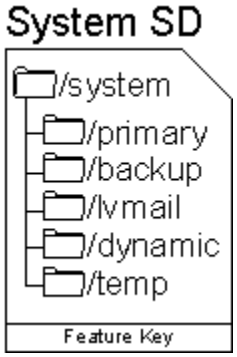
4.2 SD Card

The Avaya SD card exercises central control over the Essential Edition - PARTNER® Version system and acts as the License authorization for the control unit. The SD card is inserted into the System SD slot on the rear of the control unit.

Except when necessary during maintenance, the System SD slot should contain an Avaya SD card at all times. The files on that card are used when the system is started and the Feature Key serial number, only present on Avaya cards, is used for the licensing of IP Office features.

- The control unit has two SD card slots labeled System SD and Optional SD.
- The system SD card is also used to store copies of core software binary files, configuration files and backups as well as the voice mail application and the system status application.
- Embedded voicemail on the SD card provides 2 channels by default but can be licensed for up to 6 channels total.
- Various commands within the Manager interface enables the SD card contents to be backed up, restored or copied. These actions can also be achieved via the handset; instructions to do this are provided in the system TUI guide.
- The additional SD card slot can be used to store occasional full copies of the System SD card. or as an additional memory card to or from which, files can be copied. Non-Avaya cards can be used for this as long as they conform to the standard below:

  SDHC minimum 4GB FAT32 format (Single partition, SDHC, class2+, FAT32, SPI & SD bus).

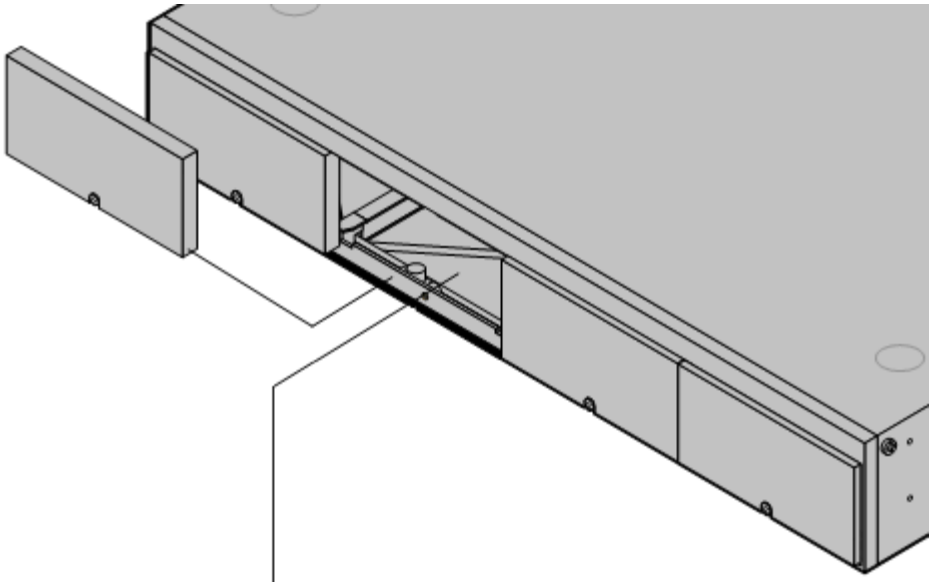


See also SD Card Actions

⚠ SD Card Removal

SD cards should never be removed while being used. Though the SD card slot LEDs indicate when data is being written to an SD card, lack of flashing LED is not a sufficient safeguard. The IP Office Manager provides methods to shutdown and restart an individual card or to shutdown the Essential Edition - PARTNER® Version system in order to allow removal of an SD card. If the System SD card is removed, licensed features will continue operating for up to 2 hours.

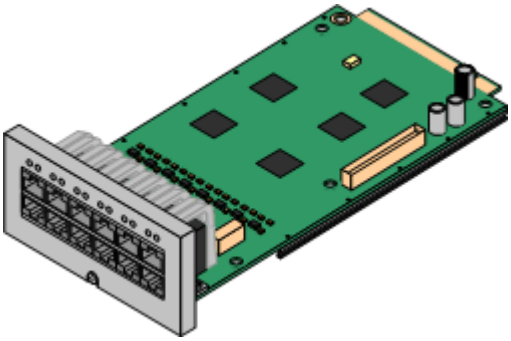
4.3 Base Cards



The IP Office 500v2 control unit has 4 slots to accomodate base cards. Each base cards includes an integral front panel with ports for cable connections.

The slots are numbered 1 to 4 from left to right. Normally they can be used in any order, however if the capacity for a particular type of card is exceeded, the card in the highest slot will be disabled.

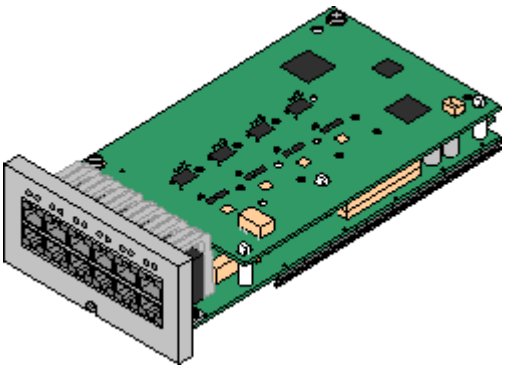
IP Office 500 Analog Phone Base Card



This card has 12 RJ45 ports. The card is available in two variants, providing 2 or 8 analog extension ports for the connection of analog phones. The card can be fitted with an IP Office 500 daughter card which then uses the additional 4 RJ45 ports for connections.

- This card accepts one IP Office 500 daughter card of any type.
- Maximum: 4 per control unit.
- When fitted with an IP Office 500 Analog Trunk daughter card, the Phone 8 base card supports 1 power failure extension to trunk (loop-start only) connection.
- The analog extension ports do not include a ringing capacitor. Where this is a requirement, connection should be via a Master socket containing ringing capacitors.

IP Office 500 ATM Combination Card

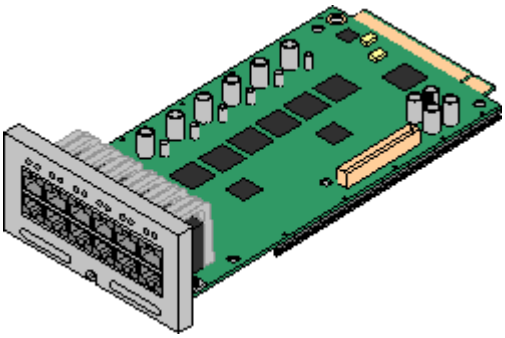


This card provides 6 digital station ports (1-6), 2 analog extension ports (7-8) and 4 analog trunk ports (9-12). The card also includes 10 VCM channels.

- This card has a pre-installed IP Office 500 ATM daughter card.
- Maximum: 2 combination cards per control unit.
- During power failure port 8 is connected to port 12.

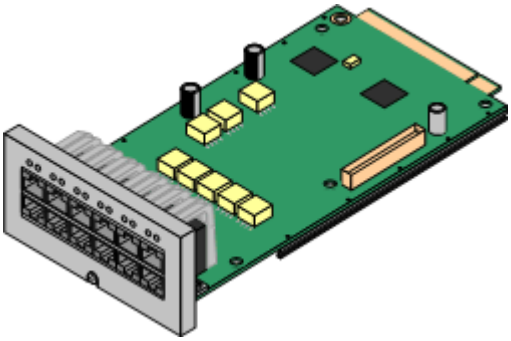
IP Office ETR6 Base Card

This card is only supported in an IP500 V2 control unit running in PARTNER® Version mode. It provides 6 ETR ports for connection of ETR phones. 2 Analog extension ports are also provided for emergency use only with an analog trunk card.



- The card can be fitted with an IP500 trunk daughter card which uses the base card ports for trunk connection.
- Maximum: 3 per control unit.
- The analog phone ports do not include a ringing capacitor. Where this is a requirement, connection should be via a Master socket containing ringing capacitors.
- If fitted with an IP Office 500 Analog Trunk daughter card, during power failure phone ports 7 and 8 are connected to analog trunk port 12. However during normal operation analog phone ports 7 and 8 are not useable.

IP500 Digital Station Base Card

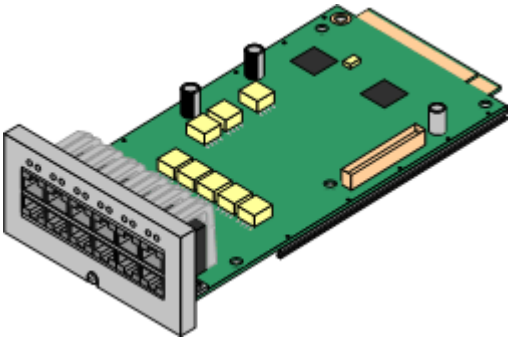


This card provides 8 DS (digital station) ports for the connection of Avaya digital phones other than IP phones.

- The card can be fitted with an IP Office 500 trunk daughter card which uses the base card ports for trunk connection.
- Maximum: 3 per control unit.
- 4400 Series phones (4406D, 4412D and 4424D) are not supported on this card. They are supported on an external expansion module.

4.3.1 Digital Station

This card is used to add digital station (DS) extension ports to the IP 500v2 control unit. It provides 8 RJ45 DS extension ports for use with Avaya digital phones not including IP phones. A further 4 RJ45 ports are provided for trunk connections when an IP500 trunk card is fitted to this card.



- Supports
  Provides 8 DS ports for digital stations supported
- Maximum per Control Unit: 3.
- IP500 Daughter Card Support: ✓ 1.

Port Type	Ports	Features	Port LEDs

Digit Station	1 to 8	Phrase IP500 Analog PortsProvides DS ports for digital stations (except 4406D, 4412D and 4424D).	• Green On - Phone detected.
			• LED1 is used for base card status:
			  • Red On = Error
			  • Red Slow Flash = Initializing.
			  • Red Flash every 5 seconds = Card okay.
			  • Red Fast Flash = System shutdown.

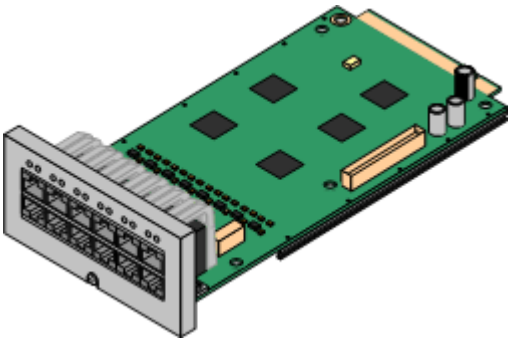
Optional Trunk Card Ports	9 to 12	The card can be fitted with one of the following trunk daughter cards. The trunk daughter card then uses ports 9 to 12 on the base card for its trunk connections.
		• IP500 Analog Trunk Card.
			LED use depends daughter card type fitted.
			• LED 9 is used for daughter card status.
			  • Red On = Error
			  • Red Slow Flash = Initializing.
			  • Red Flash every 5 seconds = Card okay.
			  • Red Fast Flash = System shutdown.
			Analog Trunk Daughter Card

		• IP500 PRI Trunk Card.	• Green on: Card fitted. • Green flashing: Trunk in use. PRI Trunk Daughter Card • Off: No trunk present. • Green on: Trunk present. • Green flashing: Trunk in use.	• Red/Green Fast Flash (port 9) or Green Fast Flash (port 10): Alarm indication signal (AIS) from the trunk remote end. • Red with Green Blink (port 9) or Green Blink (port 10): Port in loopback mode (set through IP Office System Monitor).

Name	Description	Part Number
IPO 500 Extn Card Dgtl Sta 8	IP Office 500 Extension Card Digital Station 8	700417330

4.3.2 Analog Phone

This card is used to add analog phone extension ports to the IP 500v2 control unit. It is available in two variants, providing either 2 or 8 analog extension ports.



- Supports
  Provides either 8 or 2 analog phone ports depending on card variant.
- Maximum per control unit: 4.
- IP500 Daughter Card Support: ✓ 1.

Port Type	Ports	Features	Port LEDs
Analog Extension	1 to 8	• Phrase IP500 ETR Port Supports ICLID modes DTMFA, DTMFC, DTMFD, FSK and UK20. • REN 2 (1 for external bell device). • Off-Hook current: 25mA • Ring Voltage: 40V. • Intended for connection to two-wire analog phones, the ports do not include a ringing capacitor. For connection to 4-wire analog phones, connection should be via a master socket with ringing capacitors. • If fitted with an analog trunk card, for the Phone 8, during power failure extension port 8 is connected to the analog trunk port 12.	No status LEDs are used for analog phone extensions. • LED1 is used for base card status: • Red On = Error • Red Slow Flash = Initializing. • Red Flash every 5 seconds = Card okay. • Red Fast Flash = System shutdown.

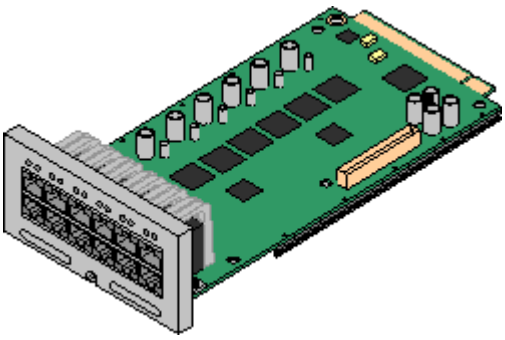
Optional Trunk Card Ports	9 to 12	The card can be fitted with one of the following trunk daughter cards. The trunk daughter card then uses ports 9 to 12 on the base card for its trunk connections. • IP500 Analog Trunk Card. • IP500 PRI Trunk Card.	LED use depends daughter card type fitted. • LED 9 is used for daughter card status. • Red On = Error • Red Slow Flash = Initializing. • Red Flash every 5 seconds = Card okay. • Red Fast Flash = System shutdown. Analog Trunk Daughter Card • Green on: Card fitted. • Green flashing: Trunk in use. PRI Trunk Daughter Card • Off: No trunk present. • Green on: Trunk present. • Green flashing: Trunk in use. • Red/Green Fast Flash (port 9) or Green Fast Flash (port 10): Alarm indication signal (AIS) from the trunk remote end. • Red with Green Blink (port 9) or Green Blink (port 10): Port in loopback mode (set through IP Office System Monitor).

Name	Description	Part Number
IPO 500 Extn Card Phone 2	IP Office 500 Extension Card Phone 2	700431778
IPO 500 Extn Card Phone 8	IP Office 500 Extension Card Phone 8	700417231

4.3.3 ETR6 Card

This card is used to add 6 ETR phone extension ports to the IP 500v2 control unit. This card is only supported by IP500 V2 systems running in Essential Edition - PARTNER® Version mode.

It also includes 2 analog extension ports which are for emergency use only when the card is fitted with an analog trunk daughter card. A further 4 RJ45 ports (9 to 12) are provided for trunk connections when an IP500 trunk daughter card is fitted to this card.



- Supports
  ETR and analog phones.
- Maximum per IP500 Control Unit: 3.
- IP500 Daughter Card Support: ✓ 1.
  The IP500 BRI trunk daughter card is not supported.

Port Type	Ports	Features	Port LEDs
ETR Extensions	1 to 6	Each ETR phone can be used for an ETR or analog phone. Support for ETR 34D phone is limited to a maximum of 2 per ETR6 card and 4 in total. • REN 1. • DTMF dialing only. • Message waiting indication 51V stepped.	No status LED are used for ETR ports. • LED1 is used for base card status: • Red On = Error • Red Slow Flash = Initializing. • Red Flash every 5 seconds = Card okay. • Red Fast Flash = System shutdown.

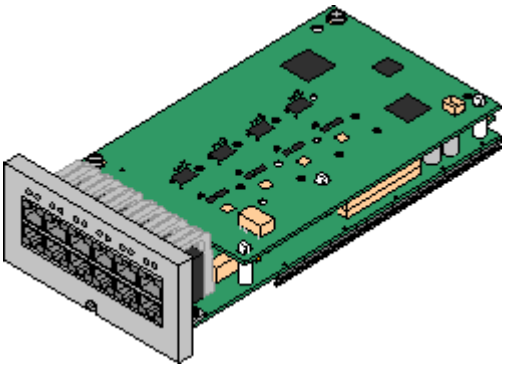
Port Type	Ports	Features	Port LEDs
		• ICLID mode Bellcore 202.	
EF	7 to 8	• If fitted with an IP500 Trunk Daughter card, during power failure both these ports are connected to analog trunk port 12. • Phrase IP500 ETR PortSupports ICLID modes DTMFA, DTMFC, DTMFD, FSK and UK20. • REN 2 (1 for external bell device). • Off-Hook current: 25mA • Ring Voltage: 40V. • Intended for connection to two-wire analog phones, the ports do not include a ringing capacitor. For connection to 4-wire analog phones, connection should be via a master socket with ringing capacitors.	No status LEDs are used for analog phone extensions.

Optional Trunk Ports	9 to 12	The ETR6 can be fitted with an Analog Trunk card	LED use depends daughter card type fitted.
			• LED 9 is used for daughter card status.
			  • Red On = Error
			  • Red Slow Flash = Initializing.
			  • Red Flash every 5 seconds = Card okay.
			  • Red Fast Flash = System shutdown.
			Analog Trunk Daughter Card
			• Green on: Card fitted.
			• Green flashing: Trunk in use.
			PRI Trunk Daughter Card
			• Off: No trunk present.
			• Green on: Trunk present.
			• Green flashing: Trunk in use.
			• Red/Green Fast Flash (port 9) or Green Fast Flash (port 10): Alarm indication signal (AIS) from the trunk remote end.
			• Red with Green Blink (port 9) or Green Blink (port 10): Port in loopback mode (set through IP Office System Monitor).

Name	Description	Part Number
IPO 500v2 EXTN CARD ETR6	IP Office 500v2 EXTN CARD ETR6	700476039

4.3.4 ATM Combination Card

This card is used to add a combination of ports to the IP 500v2 control unit.



- Supports
  - 6 Digital Station ports.
  - 2 Analog Extension ports.
  - 4 Analog Trunk ports.
  - 10 VCM channels.
- Maximum per Control Unit: 2.
- IP500 Daughter Card Support: ✓ 1. The trunk daughter card is pre-installed and cannot be replaced with another card type.

Port Type	Ports	Features	Port LEDs

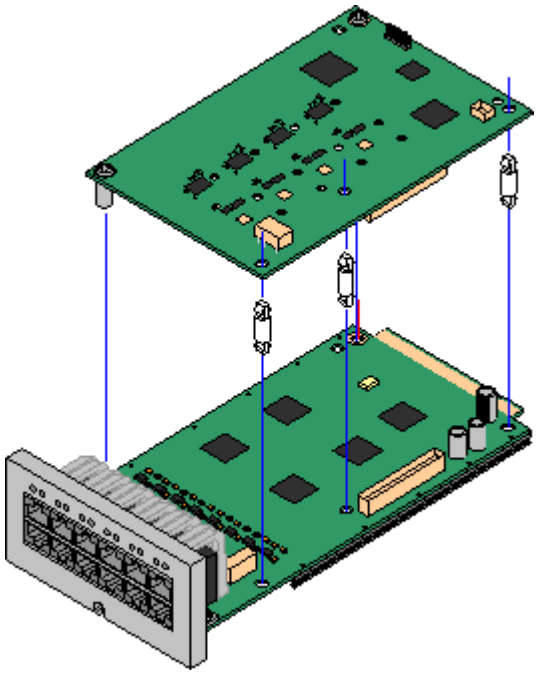
Digital Station	1 to 6	Phrase IP500 Analog PortsProvides DS ports for digital stations (except 4406D, 4412D and 4424D).	• Green On - Phone detected.
			• LED1 is used for base card status:
			  • Red On = Error
			  • Red Slow Flash = Initializing.
			  • Red Flash every 5 seconds = Card okay.
			  • Red Fast Flash = System shutdown.

Analog Extension	7 to 8	• Phrase IP500 ETR PortSupports ICLID modes DTMFA, DTMFC, DTMFD, FSK and UK20. • REN 2 (1 for external bell device). • Off-Hook current: 25mA • Ring Voltage: 40V. • Intended for connection to two-wire analog phones, the ports do not include a ringing capacitor. For connection to 4-wire analog phones, connection should be via a master socket with ringing capacitors. • During power failure extension port 8 is connected to the analog trunk port 12.	No status LEDs are used for analog phone extensions.

Analog Trunk	9 to 12	• DTMF, ICLID, Busy tone detection.
		• Over-voltage and lightning protection.
		• DTMF and LD dialing.
		• Adjustable echo cancellation (default 16ms). Selectable to Off, 8, 16, 32, 64 and 128 milliseconds.
			• Green on: Card fitted.
			• Green flashing: Trunk in use.
			• LED 9 is used for daughter card status.
			  • Red On = Error
			  • Red Slow Flash = Initializing.
			  • Red Flash every 5 seconds = Card okay.
			  • Red Fast Flash = System shutdown.

Name	Description	Part Number
IPO 500v2 COMBINATION CARD ATM	IP Office 500v2 COMBINATION CARD ATM	700476013

4.4 Trunk Cards



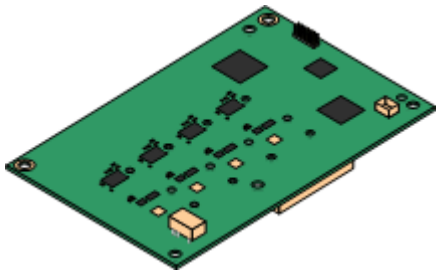
IP Office 500 Analog Trunk Daughter Card

IP Office 500 daughter trunk cards can be fitted to IP Office 500 base cards to provide support for trunk. The daughter card uses the physical ports provided on the front panel of the base card for cable connection.

The addition of an IP Office 500 daughter card is supported on any IP Office 500 base card except the IP Office 500 Legacy Card Carrier base card.

For those base card that support daughter cards, there are no restrictions on the combination of card types. However in systems with both analog phone base cards and analog trunk daughter cards, combining the two types is recommended as it then provides analog power failure support for one trunk/extension.

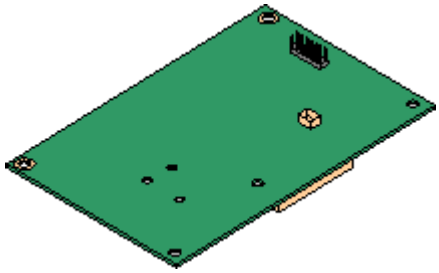
Each daughter card is supplied two pre-fitted metal pillars and 3 plastic pillars. Two screws and washers for final attachment of the metal pillars to the base card are also included.



IP Office 500 PRI-U Trunk Daughter Card

This card can be added to IP Office 500 base cards. It enables that base card to then also support four analog loop-start trunks.

- When fitted to an IP Office 500 Analog Phone 8 base card, the combination supports 1 power failure extension to trunk (loop-start only) connection.
- Maximum: 2 per IP Office 500v2 control unit.



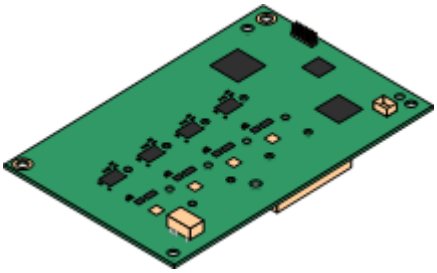
This card can be added to an IP Office 500 base card. The card is a universal card that can be configured in software for E1 PRI, T1 robbed bit, T1 PRI or E1R2. The card is available in single and dual port variants.

- Maximum: 4 per IP Office 500v2 control unit.

- The IP Office 500 PRI-U card supports E1, T1 and E1-R2 PRI modes. The Essential Edition - PARTNER® Version system supports 8 unlicensed B-channels on each IP Office 500 PRI-U port fitted. Additional B-channels, up to the capacity of ports installed and PRI mode selected require IP Office 500 Universal PRI (Additional Channels) licenses added to the configuration. These additional channels consume the licenses based on which additional channels are configured as in-service from port 9 of slot 1 upwards. D-channels are not affected by licensing.

4.4.1 Analog Trunk Card

This card can be added to an IP500 base card to provide that card with support for 4 loop-start analog trunks. This card can be fitted to any IP500 base card except the IP500 Legacy Carrier card and IP500 4-Port Expansion card.



- Ports/Channels
  4 Loop-start analog trunk ports. Connections via the host IP500 base card.
  - DTMF, ICLID, Busy tone detection.
  - Over-voltage and lightning protection (may still require additional protection equipment see Lightning Protection/Out-of-Building Connections.
  - DTMF and LD dialing.
  - Adjustable echo cancellation (default 16ms). Selectable to Off, 8, 16, 32, 64 and 128 milliseconds.
  - Power Failure Port
    Regardless of the IP500 card hosting it, during power failure pins 4 and 5 of port 12 are connected to pins 7 and 8. In addition, when fitted to an IP500 Analog Phone 8 base card, during power failure extension port 8 is connected to the analog trunk port 12.
- License: No license required.
- Maximum per IP500 Control Unit: 4.
- IP Office Software Level: 4.0+.

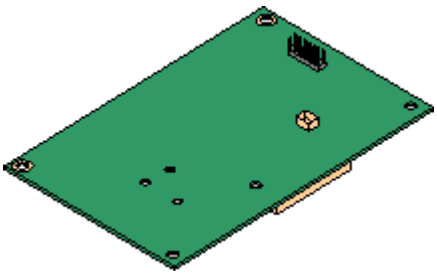
Daughter Card Ports (9-12)
The LEDs for ports 9 to 12 of the IP500 base card are used as follows:

- Green on: Card fitted.
- Green flashing: Trunk in use.
- LED 9 is used for daughter card status.
  - Red On = Error
  - Red Slow Flash = Initializing.
  - Red Flash every 5 seconds = Card okay.
  - Red Fast Flash = System shutdown.

Name	Description	Part Number
IPO 500 Trnk Anlg 4 Uni	IP Office 500 Trunk Card Analog 4 Universal	700417405

4.4.2 PRI Trunk Cards

This card can be added to an IP500 base card to provide that card with support for PRI trunks. The card is available in single port or dual port variants.



- Ports/Channels
  1 or 2 PRI trunk ports. Each port supports the following PRI line types. On dual port cards both ports will be the same line type. The line type selection can be changed using IP Office Manager.
    - E1 PRI (30B+D channels per port).
    - E1R2 PRI (30B channels per port).
    - T1 robbed bit (24B channels per port) or T1 PRI (23B+D channels per port).
  - The required mode can be selected within IP Office Manager by right-clicking on the line icon and selecting Change Universal PRI Card Line Type and then selecting the required line type.
  - Physical trunk connection is via ports 9 and 10 of the host IP500 base card.
  - Port 11 and 12 can be used as test points for connection of test and monitoring equipment for the adjacent port.

- Licenses
  The IP Office system supports 8 unlicensed B-channels on each IP500 PRI-U port fitted. Additional B-channels, up to the capacity of ports installed and PRI mode selected require IP500 Universal PRI (Additional Channels) licenses added to the configuration. These additional channels consume the licenses based on which additional channels are configured as in-service from port 9 of slot 1 upwards. D-channels are not affected by licensing.
- Maximum per IP500 Control Unit: 4.
- Software Level: 4.1+.

Daughter Card Ports (9-12)
The LEDs for ports 9 to 12 of the IP500 base card are used as follows:

- Off: No trunk present.
- Green on: Trunk present.
- Green flashing: Trunk in use.
- Red/Green Fast Flash (port 9) or Green Fast Flash (port 10): Alarm indication signal (AIS) from the trunk remote end.
- Red with Green Blink (port 9) or Green Blink (port 10): Port in loopback mode (set through IP Office System Monitor).
- LED 9 is used for daughter card status.
  - Red On = Error
  - Red Slow Flash = Initializing.
  - Red Flash every 5 seconds = Card okay.
  - Red Fast Flash = System shutdown.

Name	Description	Part Number
IPO 500 TRNK PRI 1 UNI	IP Office 500 Trunk Card Primary Rate 1 Universal	700417439
IPO 500 TRNK PRI 2 UNI	IP Office 500 Trunk Card Primary Rate 2 Universal	700417462

4.5 Expansion Modules

The Essential Edition - PARTNER® Version control unit can support one extension unit as follows:

- Digital Station (DS) module.

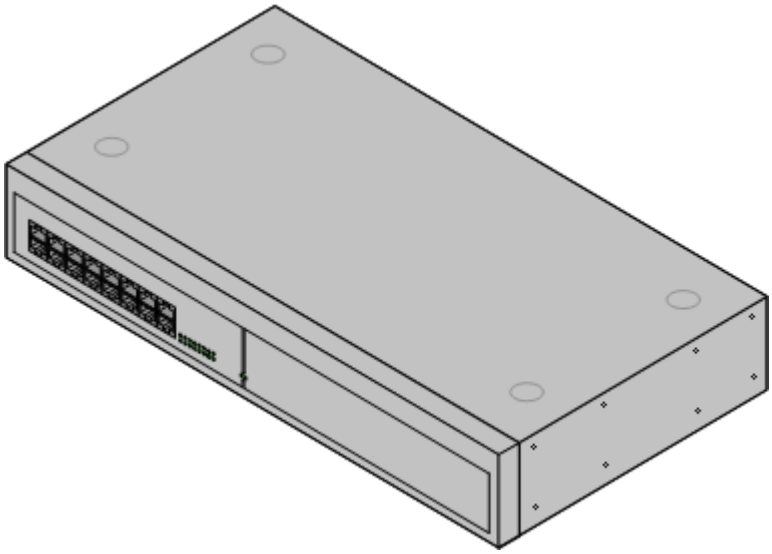
or

- Phone module.

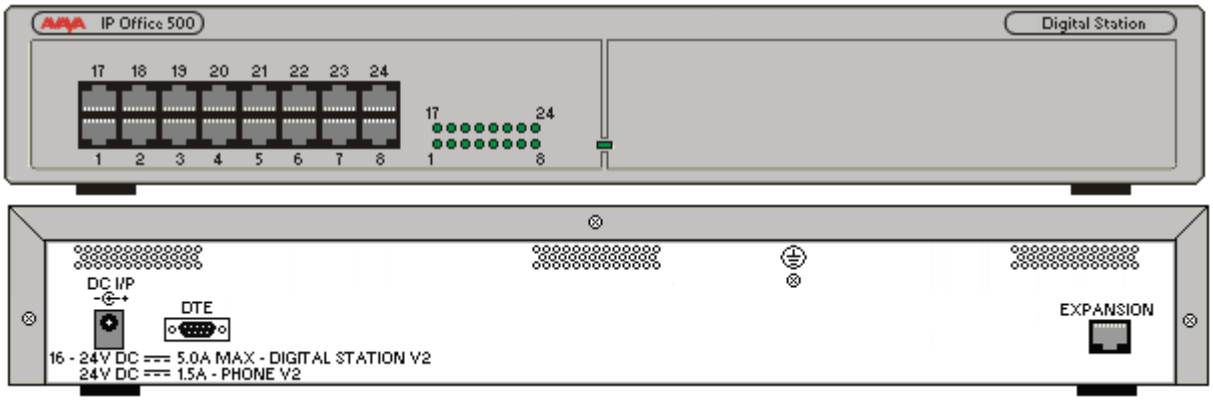
4.5.1 Digital Station

IPO 500 Digital Station modules can be used to add additional DS ports to an Essential Edition - PARTNER® Version system. Note that this requires the IP Office control unit to be configured with an IP Office 500 Upgrade Standard to Professional license.

The module is referred to as the IPO 500 Digital Station 16.

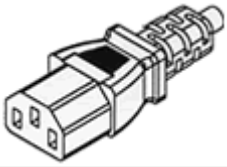


IPO 500 Digital Station Connections


IP Office 500
Digital Station
17 18 19 20 21 22 23 24
1 2 3 4 5 6 7 8
17 24
1 8
DC I/P
DTE
EXPANSION
16 - 24V DC ⎓ 5.0A MAX - DIGITAL STATION V2
24V DC ⎓ 1.5A - PHONE V2

Ports	Description
DC I/P	DC power input port. Used for connection of the power lead from an Avaya earthed 60W external power supply unit supplied with the expansion module. A locale specific IEC60320 C13 power cord for the external PSU is required but is not supplied with the module.
DS	RJ45 sockets. Digital Station port. Used for connection of IP Office supported DS phones. If connected to an out-of-building extension, the connection must be made via additional IROB barrier devices in addition to the buildings primary protection. The module must also be connected to a protective ground.
DTE	9-Way D-Type socket. For Avaya use only.
EXPANSION	RJ45 Socket. Used for direct connection to an Expansion port on an IP Office control unit using the Expansion Interconnect cable supplied with the module.
⏚	Protective Ground point. Use of a protective ground is required for all installations, see Grounding (Earthing). Where the module is connected to analog extensions in another building, an IP Office Phone Barrier Box V2 (101V) is required at both ends, see Lightning Protection/Out-of-Building Connections.

All expansion modules are supplied with a base software level and should be upgraded to match the core software of the control unit in the IP Office system.

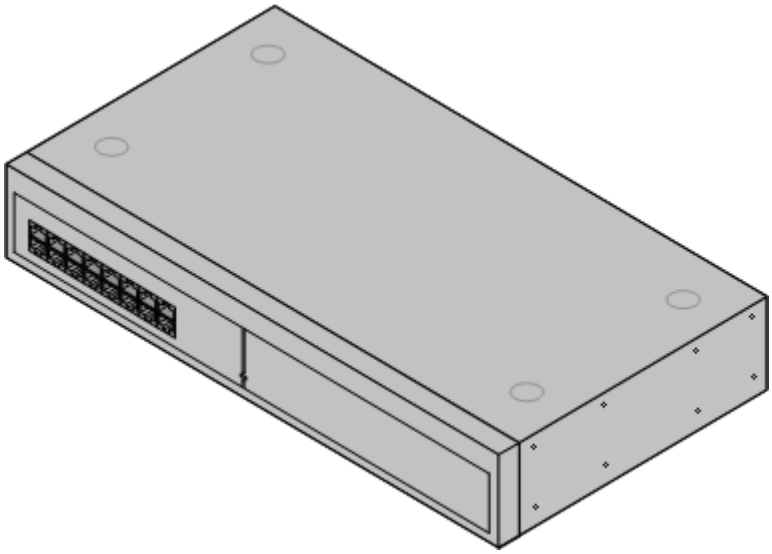
Item	Variant	Country	Part number
IPO 500 Digital Station	16 Ports	All	700449499
IEC60320 C13 Power Cord 	CEE7/7	Europe	700289762
	BS1363	United Kingdom	700289747
	NEMA5-15P	America	700289770
IP Office 500Rack Mounting Kit		All	700429202

Expansion modules include an external power supply unit (PSU) and an appropriate interconnect cable. They do not include a locale specific power cord for the external PSU or any phone extension cables.

4.5.2 Phone Module

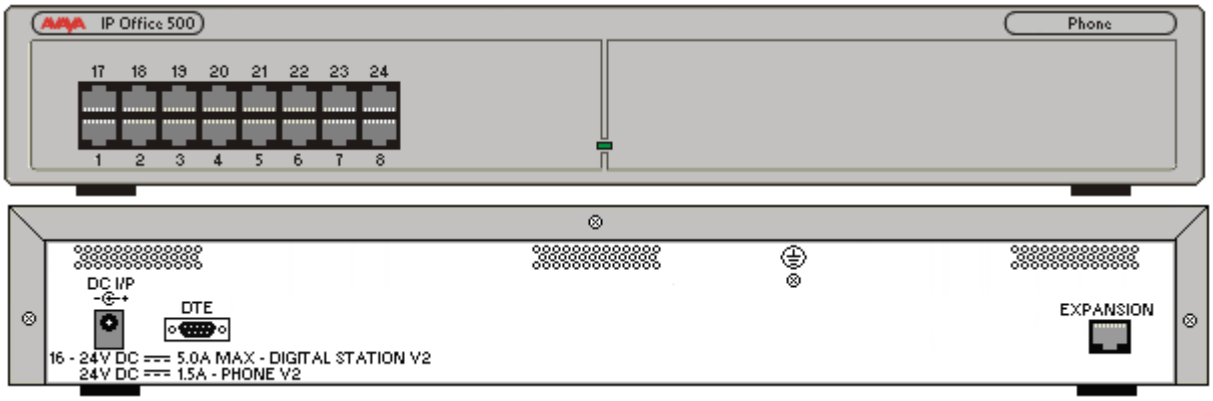
IPO 500 Phone modules can be used to add additional PHONE ports to an IP Office Partner® Version system. Note that this requires the IP Office 500 control unit to be configured with an IP Office 500 Upgrade Standard to Professional license.

The module is referred to as the IPO 500 Phone 16.



Feature	Details
Software Level	IP Office core software level 2.1(36) minimum. Bin file = dvpots.bin.
Included	Power supply unit (see below) and Expansion Interconnect cable.
Power Supply	The module is supplied with a Earthed 3-Pin, 60W external power supply unit. The PSU has an integral power cord for connection to the module's DC I/P socket. A locale specific IEC60320 C13 power cord for the external PSU is required but is not supplied with the module.
Mounting	The module is designed as a free-standing module that can be stacked on or under other IP Office modules. The module can be rack mounted in a 19" rack system using the optional IP Office 500Rack Mounting Kit.
Dimensions	Width: 445mm/17.5". Depth: 245mm/9.7". Height: 71mm/2.8".
Weight	Unboxed: 3.1Kg/6.94lbs. Boxed: 4.4Kg/9.7lbs. (Based on Phone 30 V2)

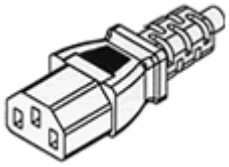
IPO 500 Phone Connections


IP Office 500
Phone
17 18 19 20 21 22 23 24
1 2 3 4 5 6 7 8
DC I/P
DTE
EXPANSION
16 - 24V DC ⎓ 5.0A MAX - DIGITAL STATION V2
24V DC ⎓ 1.5A - PHONE V2

Ports	Description
DC I/P	DC power input port. Used for connection of the power lead from an Avaya earthed 60W external power supply unit supplied with the expansion module. A locale specific IEC60320 C13 power cord for the external PSU is required but is not supplied with the module.
DTE	9-Way D-Type socket. For Avaya use only.
EXPANSION	RJ45 Socket. Used for direct connection to an Expansion port on an IP Office control unit using the Expansion Interconnect cable supplied with the module.

PHONE (front panel)	RJ45 sockets. Used for connection of analog phones. Intended for two-wire analog phones. For connection to 4-wire analog phones connection should be via a master socket with ringing capacitors. If connected to an out-of-building extension, the connection must be made via additional IP Office Barrier Boxes in addition to the buildings primary protection. The module must also be connected to a protective ground.
⏚	Protective Ground point. Use of a protective ground is required for all installations, see Grounding (Earthing). Where the module is connected to analog extensions in another building, an IP Office Phone Barrier Box V2 (101V) is required at both ends, see Lightning Protection/Out-of-Building Connections.

All expansion modules are supplied with a base software level and should be upgraded to match the core software of the control unit in the IP Office system.

Item	Variant	Country	Part number
IPO 500 Phone	16 Ports	All	700449507
IEC60320 C13 Power Cord 	CEE7/7	Europe	700289762
	BS1363	United Kingdom	700289747
	NEMA5-15P	America	700289770
	China	China	700261977
IP Office 500Rack Mounting Kit		All	700429202

Expansion modules include an external power supply unit (PSU) and an appropriate interconnect cable. They do not include a locale specific power cord for the external PSU or any phone extension cables.

4.6 Telephones

Essential Edition - PARTNER® Version supports the following phones and phone add-ons. Availability may be subject to local restrictions.

- ETR 34, 18, 6, 34D, 18D, 6D,
- 3910, 3920
- 1403, 1408 1416
- All POTS telephones
- BM32 Buttons
- Digital station connects to the Essential Edition - PARTNER® Version via a DS port.

4.6.1 1416

This phone is supported by the Essential Edition - PARTNER® Version system.

1416	Feature	1416
	Connects via	DS port.
	Programmable Buttons	✓ 16
	Headset Socket	✓
	Hands free Speaker/ Microphone	✓/✓
	Message Waiting Lamp	✓
	Display	4 x 24 Backlit.
	Supported Add-Ons	BM32 x 2.
	Upgradeable Firmware	✓

Fixed Function Keys				
✓ SPEAKER	✓ HEADSET	✓ MUTE	✓ VOLUME UP	✓ CONTACTS
✓ MESSAGE	✓ HOLD	✓ TRANSFER	✓ VOLUME DOWN	✓ CALL LOG
✓ DROP	✓ REDIAL	✓ CONFERENCE	✓ MENU	

4.6.2 1408

This phone is supported with Essential Edition - PARTNER® Version

1408	Feature	1408
	Connects via	DS port.
	Programmable Buttons	✓ 8
	Headset Socket	✓

	Hands free Speaker / Microphone	✓ / ✓
	Message Waiting Lamp	✓
	Display	3 x 24 backlit.
	Supported Add-Ons	None.
	Upgradeable Firmware	✓

Fixed Function Keys				
✓ SPEAKER	✓ HEADSET	✓ MUTE	✓ VOLUME UP	✓ CONTACTS
✓ MESSAGE	✓ HOLD	✓ TRANSFER	✓ VOLUME DOWN	✓ CALL LOG
✓ DROP	✓ REDIAL	✓ CONFERENCE	✓ MENU	

4.6.3 1403

The 1403 IP telephone is a multi line IP telephone for use with Avaya IP Office. The 1403 IP telephone puts convenient features and capabilities at your fingertips, including a Conference, Transfer, Hold, and Redial button and a menu of options and settings to customize your phone.

Not all features described in this user guide may be available on your telephone. If you find that a feature is not available, contact your system administrator.

Name	Description
Message Waiting Indicator	An illuminated red light in the upper-right corner of your phone indicates you have voicemail messages waiting. If Visual Alerting is enabled, this light flashes when you receive an incoming call.
Avaya Menu	Press the A button to access the Avaya menu. Press the A button twice to exit the Avaya menu. The Avaya menu provides options that allow you to customize phone settings, select the display language, view network information, and log out.
Redial	Press Redial to dial the last number you dialed.
Hold	Press Hold to put the active call on hold.
Conference	Press Conference to add another party to an existing call.

Name	Description
Transfer	Press Transfer to transfer a call to another number.
Drop	Press Drop to drop the active call. While on a conference call, press Drop to drop the last person added to the conference call.
Volume	Press + or - on the volume button while active on the handset or speaker to adjust the volume. To adjust the volume of the ringer, press + or - on the volume button while the handset and speaker are inactive.
Mute	Press Mute to mute a call in progress. To take a call off mute, press Mute again.
Speaker	Press Speaker to use the speakerphone. To take a call off speakerphone, lift the handset.
Feature Buttons and Call/Line Appearance Buttons	There are 3 buttons that can be programmed by the system administrator as either call/line appearance buttons or feature buttons. Press a call/line appearance button to make or answer a call or resume a call on hold. Press a labeled feature button to enable or disable that feature. Typically, two buttons are administered as call/ line appearance buttons and one button is administered as a feature button. The feature button provides access to an Avaya call management system feature that has been administered for your extension. The green LED next to the feature button indicates if the feature is currently on or off. If the light is on, the feature is on.

4.6.4 ETR34D

This phone is only supported by an ETR6 card in the Essential Edition - PARTNER® Version system.

All 'Refresh' and 'Euro Style' variants of the phone are supported. An additional analog device using the same extension number can be connected via the ETR phone AUX socket.

The Essential Edition - PARTNER® Version system supports up to maximum 4 ETR34D handsets (2 per ETR6 module)

The ETR PARTNER® Version telephones have fixed buttons that are already imprinted and line buttons that you can press to connect to an inside (intercom) or outside line. If a line button is not assigned as an intercom or outside line button, you can program an extension number or a feature on it. The telephones also have a display, which provides feedback messages and prompts from the system.

ETR34D Telephone Features

Feature	34
Number of programmable buttons with lights	32
Number of programmable buttons without lights	4
Key mode line button capacity	24
Intercom Buttons	2
Display	Yes
Speakerphone	Yes

4.6.5 ETR6D

This phone is only supported by an ETR6 card in the Essential Edition - PARTNER® Version system.

All 'Refresh' and 'Euro Style' variants of the phone are supported. An additional analog device using the same extension number can be connected via the ETR phone AUX socket.

The ETR PARTNER® Version telephones have fixed buttons that are already imprinted and line buttons that you can press to connect to an inside (intercom) or outside line. If a line button is not assigned as an intercom or outside line button, you can program an extension number or a feature on it. The telephones also have a display, which provides feedback messages and prompts from the system.

ETR6D Telephone Features

Feature	6D
Number of programmable buttons with lights	4
Number of programmable buttons without lights	0
Key mode line button capacity	4
Intercom Buttons	2
Display	Yes
Speakerphone	Yes

4.6.6 ETR18D

This phone is only supported by an ETR6 card in the Essential Edition - PARTNER® Version system.

All 'Refresh' and 'Euro Style' variants of the phone are supported. An additional analog device using the same extension number can be connected via the ETR phone AUX socket.

The ETR PARTNER® Version telephones have fixed buttons that are already imprinted and line buttons that you can press to connect to an inside (intercom) or outside line. If a line button is not assigned as an intercom or outside line button, you can program an extension number or a feature on it. The telephones also have a display, which provides feedback messages and prompts from the system.

ETR18D Telephone Features

Feature	18D
Number of programmable buttons with lights	16
Number of programmable buttons without lights	4
Key mode line button capacity	16
Intercom Buttons	2
Display	Yes
Speakerphone	Yes

4.6.7 ETR34

This phone is only supported by an ETR6 card in the Essential Edition - PARTNER® Version system.

All 'Refresh' and 'Euro Style' variants of the phone are supported. An additional analog device using the same extension number can be connected via the ETR phone AUX socket.

The ETR PARTNER® Version telephones have fixed buttons that are already imprinted and line buttons that you can press to connect to an inside (intercom) or outside line. If a line button is not assigned as an intercom or outside line button, you can program an extension number or a feature on it.

ETR34 Telephone Features

Feature	
Number of programmable buttons with lights	32
Number of programmable buttons without lights	4
Key mode line button capacity	24
Intercom Buttons	2
Display	No
Speakerphone	Yes

4.6.8 ETR18

This phone is only supported by an ETR6 card in the Essential Edition - PARTNER® Version system.

All 'Refresh' and 'Euro Style' variants of the phone are supported. An additional analog device using the same extension number can be connected via the ETR phone AUX socket.

The ETR PARTNER® Version telephones have fixed buttons that are already imprinted and line buttons that you can press to connect to an inside (intercom) or outside line. If a line button is not assigned as an intercom or outside line button, you can program an extension number or a feature on it.

ETR18 Telephone Features

Feature	
Number of programmable buttons with lights	16
Number of programmable buttons without lights	4
Key mode line button capacity	16
Intercom Buttons	2
Display	No
Speakerphone	Yes

4.6.9 ETR6

This phone is only supported by an ETR6 card in the Essential Edition - PARTNER® Version system.

All 'Refresh' and 'Euro Style' variants of the phone are supported. An additional analog device using the same extension number can be connected via the ETR phone AUX socket.

The ETR PARTNER® Version telephones have fixed buttons that are already imprinted and line buttons that you can press to connect to an inside (intercom) or outside line. If a line button is not assigned as an intercom or outside line button, you can program an extension number or a feature on it.

ETR6 Telephone Features

Feature	
Number of programmable buttons with lights	4
Number of programmable buttons without lights	0
Key mode line button capacity	4
Intercom Buttons	2
Display	No
Speakerphone	Yes

4.6.10 3910

This single station DECT phone is supported on an IP 500v2 control unit running in Partner® Version mode. The base station uses an ETR port for connection to the IP Office. This phone is no longer available from Avaya and has been superseded by the 3920.

4.6.11 3920

The Avaya 3920 is a single station DECT phone wireless telephone, designed specifically for small businesses

Utilizing next-generation digital technology (DECT 6.0), the Avaya 3920 wireless telephone offers high quality voice communication. DECT, unlike other wireless technologies, uses a dedicated frequency that prevents interference from other devices and delivers increased coverage in warehouse and campus-like environments.

* Coverage area depends on building construction and environmental conditions.

The base station uses an ETR port for connection to Essential Edition - PARTNER® Version.

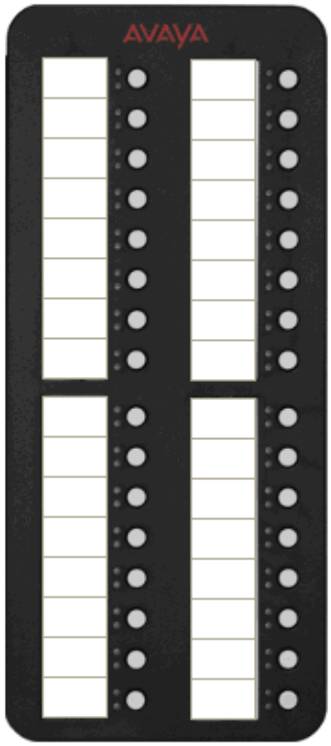
4.6.12 POTS

Essential Edition - PARTNER® Version systems support most types of analog phone.

There are differences in behavior between ETR6 POTs and PHONE/Combination POTs that should noted:

- ETR6 POTs are defined as POTs directly connected to the ETR6 module and not to the AUX jack on the back of an ETR digital telephone. PHONE/Combination POTs are POTs connected to PHONE or Combination system modules.
- PHONE/Combination POTs cannot have line appearances whilst ETR6 POTs can. ETR6 POTs having line appearances is consistent with PARTNER® ACS operation.
- PHONE/Combination POTs ring with ring patterns consistent with IP Office whilst ETR6 POTs ring with ring patterns consistent with PARTNER® ACS:
    - Intercom calls to PHONE/Combination POTs are one long ring while on ETR6 POTs, they are one long ring followed immediately by one short ring.
    - Outside calls on PHONE/COMBO POTs are one very long ring whilst on ETR6 POTs they are just one long ring.
    - Transferred calls on PHONE/COMBO POTs are the same ring as the base call type, inside or outside, while on ETR6 POTs they are one long ring followed immediately by two short rings.
    - Returning held calls on PHONE/Combination POTs are three short rings whilst on ETR6 POTs they are one long ring followed immediately by two short rings.
    - Returning parked calls on PHONE/Combination POTs ring with the base call ringing pattern whilst on ETR6 POTs they ring with the same ring as the returning held call.
- ETR6 POTs cannot place calls on hold for extended periods like PHONE/Combination POTs. This is consistent with PARTNER® ACS POT behavior. If a call is placed on hold and the ETR6 POT user hangs up, the call immediately returns and rings with the returning held call ringing pattern described above.
- The PE Automatic Line Selection feature applies to ETR6 POTs whilst it does not apply to PHONE/Combination POTs. When a PHONE/Combination POTs user dials 9 to obtain an outside line, it looks for an available line starting at line one and progressing upwards. When a ETR6 POTs user dials 9 to obtain an outside line, it uses the ALS programming to select an available line potentially skipping some lines.
- Call Waiting Tone is consistent between ETR6 POTs and PHONE/Combination POTs, which is one short beep of tone. This is inconsistent (but acceptable) with PARTNER® ACS which is two short beeps of tone.

4.6.13 Phone Add-Ons



The 1416 phone supports button modules which provided the phone with additional programmable buttons.

The number of button modules supported per phone and per system are as follow:

- DBM32: *(1416)*
  Up to 32 DBM32s supported (32 buttons each, up to 1024 buttons).

The maximum combined number of buttons per system is 512, regardless of whether the buttons are programmed or not.

This add on provides an additional 32 twin-LED programmable buttons for 1416 phones. The BM32 does not require its own power supply connection, instead it draws power from the phone to which it is connected.

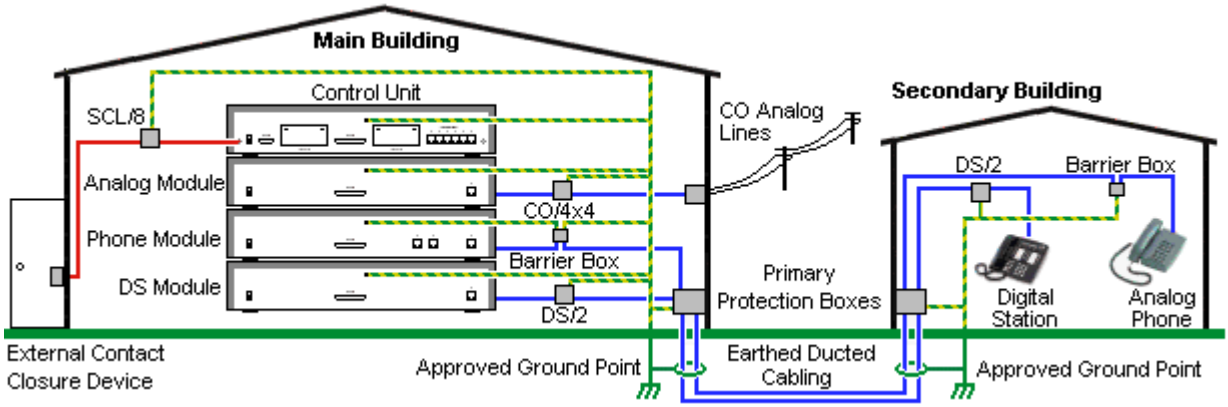
- Only two BM32 units can be connected in a chain from a single 1416. Up to three 1416 telephones with BM32s are supported, i.e. 6 BM32s.
- To support a BM32 the phone must be powered by an individual 1600 Series Power Adapter.
- Up to a maximum of 16 BM32 units are supported on the whole IP Office system.
- The BM32 buttons cannot be used for appearance functions such as call and line appearances.

Item	Part number
BM32 BUTTON MODULE	700415573
Accessories	
1600 SERIES BM32 CABLE - REPLACEMENT	700415581
1600 SERIES BM32 BOND BRIDGE - REPLACEMENT	700415599
1616/BM32 PLASTIC LABEL COVERS (20) – REPLACEMENT	700415672
1600 SERIES BM32 FLIP STAND - REPLACEMENT	700432800
Paper Labels	
1616/BM32 PAPER DESI LABELS - PACKAGE OF 50 LABELS (8.5" x 11")	700415656
1616/BM32 PAPER DESI LABELS - PACKAGE OF 50 LABELS (A4)	700434236

4.7 Out of Building Telephone Installations (COPY)

The following are the only supported scenarios in which wired extensions and devices outside the main building can be connected to the IP Office system. In these scenarios, additional protection, in the form of protective grounding and surge protectors, must be fitted.

⚠ The fitting of additional protection does not remove the risk of damage. It merely reduces the chances of damage.



Cabling Requirements

- Cables of different types, for example trunk lines, extensions, ground and power connections, should be kept separate.
- All cabling between building should be enclosed in grounded ducting. Ideally this ducting should be buried.
- A Primary Protection Box must be provided at the point where the cables enter the building. This should be three point protection (tip, ring and ground). Typically this would be gas tube protection provided by the local telephone company. The ground wire must be thick enough to handle all the lines being affected by indirect strike at the same time.

Connection Type	Protection Device Type	Requirement
DS Phone Extensions ⚠ Digital Station Expansion module DS ports only.	ITWLinx towerMAX DS/2 Supports up to 4 connections. (This device was previously referred to as the Avaya 146E).	• Connection from the expansion module to the phone must be via a surge protector at each end and via the primary protection point in each building. • The IP Office expansion module and control unit and IROB devices must be connected to the protective ground point in their building. • The between building connection must be via earthed ducting, preferable underground. The cable must not be exposed externally at any point.
Analog Phone Extensions ⚠ Phones Expansion module (POT or PHONE) ports only.	IP Office Barrier Box Supports a single connection. Maximum of 16 on any expansion module.	
Analog Trunks	ITWLinx towerMAX CO/4x4 Supports up to 4 two-wire lines. (This device was previously referred to as the Avaya 146C).	For locations where the risk of lightning strikes is felt to be high, additional protection of incoming analog trunks is recommended.
External Output Switch	ITWLinx towerMAX SCL/8 (This device was previously referred to as the Avaya 146G)	Connections from an IP Office Ext O/P port to an external relay device must be via a surge protector.

* The towerMAX range of devices are supplied by ITWLinx (http://www.itwlinx.com).

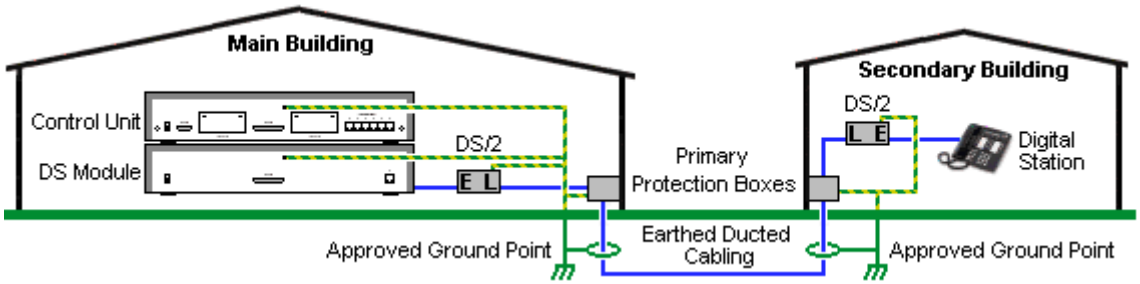
4.7.1 DS Phones

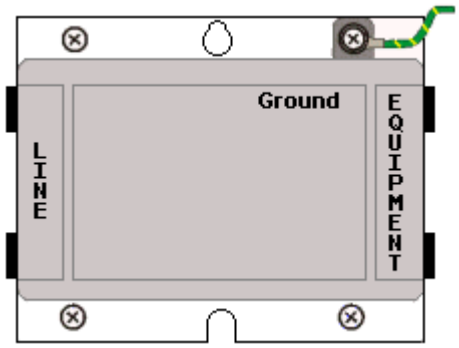
When digital phone extensions are required in another building, additional In-Range Out-Of-Building (IROB) protective equipment must be used. For phones connected to IP Office DS ports, the supported device supplied by ITWLinx is a towerMAX DS/2* module. This IROB device was previous badged by Avaya as the 146E IROB.

The protection device should be installed as per the instructions supplied with the device. The ground points on the IP Office control unit and the DS modules must be connected to a protective ground using 18AWG wire with a green and yellow sleeve.

Typically the IROB

2 RJ45 EQUIPMENT ports are straight through connected to the 2 RJ45 LINE ports. This allows existing RJ45 structured cabling, using pins 4 and 5, to be used without rewiring for up to two DS connection. However each of these ports can be used to connect a second extension using pins 3 and 6.



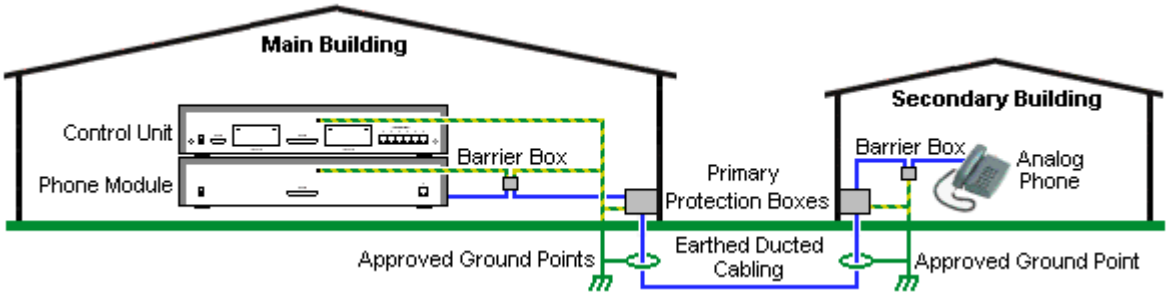
LINE		Signal		EQUIPMENT	
RJ45 8 1	1	Not used.		1	RJ45 8 1
	2	Not used.		2	
	3	Ring II (Optional)		3	
	4	Ring I		4	
	5	Tip I		5	
	6	Tip II (Optional)		6	
	7	Not used.		7	
	8	Not used.		8	

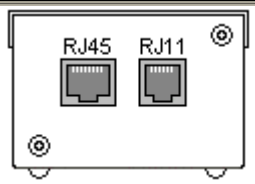
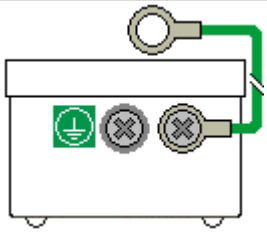
* The towerMAX range of devices are supplied by ITWLinx (http://www.itwlinx.com).

4.7.2 Analog Phone Barrier Box

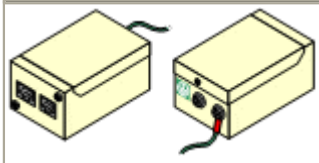
Where analog phone extensions are required in another building, additional protective equipment must be used, in the form of IP Office Phone Barrier Boxes and protective earth connections.

- The correct IP Office specific barrier boxes must be used. These modules have been designed specifically for the signalling voltages used by the IP Office system:
  - Only the IP Office Phone Barrier Box V2 should be used.
  - No other type of analog phone barrier box should be used.
- Where more than 3 barrier boxes are required in a building, they must be rack mounted using a Barrier Box rack mounting kit.
- A maximum of 16 barrier boxes can be used with any Phone module.
- CAUTION: PHONE (POT) ports on the front of control units must not be used for extensions that are external to the main building.



Main Building	Barrier Box	Secondary Building
• RJ11: Connect to PHONE (POT) port on the Phone module using cable supplied with the barrier box. • RJ45: Connect to the secondary building barrier box via primary protection in both buildings.		• RJ11: Connect to analog phone. Cable not supplied. • RJ45: From main building via primary protection in both buildings.
• Center Screw: Connect to main building protective ground (or ground terminal of Barrier Box Rack Mounting Kit). Use 18AWG (minimum) wire with a green and yellow sleeve. • Right-Hand Screw: Connect to ground point on Phone module using ground cable supplied with barrier box.		• Center Screw: Connect to main building protective ground. Use 18AWG (minimum) wire with a green and yellow sleeve. • Right-Hand Screw: Not used.

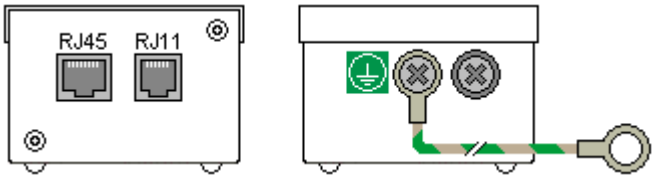
Wires from external telephone going directly to the barrier boxes must be kept apart, that is not routed in the same bundle:

IP Office Barrier Boxes		Part number
	IP Office 500 Phone Barrier Box (81V) Use with Phone V1 module. Includes an RJ45 to RJ11 cable and a functional earth lead.	700293897
	IP Office 500 Phone Barrier Box V2 (101V) Use with Phone V2 module. Includes an RJ45 to RJ11 cable and a functional earth lead.	700385495
	Barrier Box Rack Mounting Kit	700293905

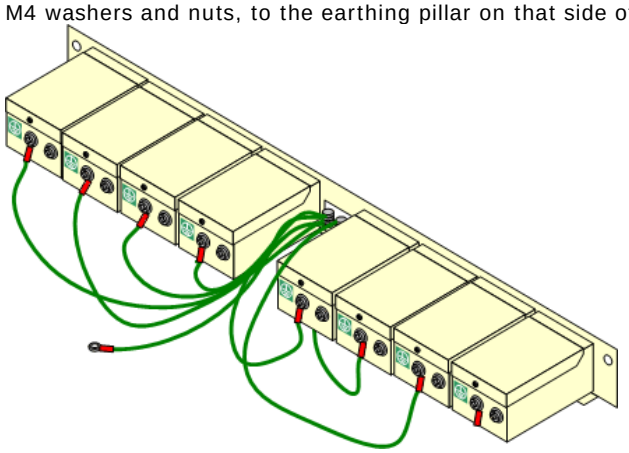
4.7.3 Rack Mounting Barrier Boxes

Where more than 3 Phone Barrier Boxes are used they must be rack mounted. The Barrier Box Rack Mounting Kit (Part number 700293905) supports up to 8 Phone Barrier Boxes.

1. Unscrew the two screws arranged diagonally at the front of each barrier box and use these same screws to reattach the barrier box to the rack mounting strip.
2. Each barrier box is supplied with a solid green ground wire connected to its functional ground screw. Remove and discard this wire. Connect a green/yellow ground wire to the protective earth screw in the center of the Point on the back of the Barrier Box.



3. The rack mounting strip has threaded M4 earthing pillars. Connect the free end of the barrier box ground wire, using M4 washers and nuts, to the earthing pillar on that side of the rack mounting strip.



4. Using 14AWG wire with green and yellow sleeve, connect one of the earthing pillars to the buildings protective earth.
5. Using 14AWG wire with green and yellow sleeve, connect the other earthing pillar to the Phone module.
6. Ensure that the following wires are not routed together in the same bundle:
    - Earth lead from the barrier box to the Phone 8/16/32.
    - Internal wires, e.g. wires going directly to the Phone 8/16/32.
    - Wires from external telephone going directly to the barrier boxes.

4.8 Associated Applications

This section outlines the PC applications supported by Essential Edition - PARTNER® Version. These are just outlines, for full details refer to the specific installation manuals for those applications and to the IP Office Technical Bulletins.

Note: The use of Windows 2000 operating systems is no longer tested or supported with Essential Edition - PARTNER® Version applications

The following Windows applications are used to program and maintain an IP Office system. They run on PCs connected to the IP Office system via its LAN interface. These applications are all provided on the IP Office Administrator Applications CD and don't require any licenses.

Typically all these applications would be installed onto a single PC (usually a laptop) in order to ensure that each is available on site if required. Due to the nature of the applications, this should be a secure PC.

- IP Office Manager
  This tool is used to access all parts of the Essential Edition - PARTNER® Version configuration. Manager is also used to upgrade the software files used by the system. When running is can also act as the TFTP server from which upgradable Avaya phones can request new software.
- Embedded Voicemail
  Also called Integral Voicemail, this application is supported by the IP Office 500v2 control unit. It is pre-installed on the SD Card to store messages and prompts. Embedded Voicemail supports basic voicemail mailbox operation, simple auto-attendants and hunt group announcements.
- System Status Application
  This application can be used to inspect the current status of Essential Edition - PARTNER® Version lines and extensions and to view records of recent alarms and events. It runs as a Java application.
- TAPI/Devlink
  Provides a real-time event stream in addition to the SMDR interface provided in Essential Edition - PARTNER® Version SMDR. The real-time event stream takes the form of a call record, which is issued whenever the state of any endpoint of a call changes (typically there are two end points on a call, but for some circumstances, such as conference calls or intruded calls there may be more)
- Monitor (SysMon)
  Monitor is a tool that can show a trace of all activity on the IP Office system in detail. As a consequence, interpretation of Monitor traces requires a high-level of data and telephony protocol knowledge. Despite that however, all IP Office installers and maintainers need to understand how to run Monitor when necessary as Avaya may request copies of Monitor traces to resolve support issues.

4.8.1 Voicemail

Key features are:

- Does not require a license key.
- Maximum Message Length = 120 seconds for any message.
- Maximum of 4 Simultaneous Users
- Supports basic voicemail email and customization.
- Pin code
- Ringback
- Voicemail On/Off
- Email address
- Voicemail email on/off

User, Group and Mailbox Names

The voicemail application creates mailboxes based on the user and hunt group names allocated using the Essential Edition - PARTNER® Version Manager application. Whenever either the voicemail server or the Control Unit restart, new mailboxes are created for any new names found.

This method of operation has the following consequences:

- Mailboxes are based on names: For all users and groups, if their name is changed, they may no longer be associated with their former mailbox.
- Voicemail is case sensitive: If a mailbox or start point name is entered incorrectly within a Manager or Voicemail Pro, the intended operation will not occur and the call may be disconnected.
- Voicemail removes spaces at the end of mailbox names: If spaces are left at the end of a mailbox user's name within Manager, when Voicemail creates the directory the space at the end of the name will be dropped. When this occurs the mailbox cannot be found as there is a miss-match between the user name and directory.

The default configuration for Essential Edition - PARTNER® Version allows almost immediate voicemail operation once the voicemail server is running. The IP Office default settings are:

- Voicemail on for each user and hunt group on the IP Office.

- No Voicemail Code set for any mailboxes. Until a code is entered for a mailbox, it can only be accessed from the user's own extension.
- No Voicemail Email or Voicemail Help operational.
- No Voicemail Reception for user mailboxes.
- Whilst hunt group mailboxes are created and used by default, there is no default method for accessing them. A method for accessing each hunt group mailbox should be programmed. See "Hunt Group Voicemail" on page 36.

A range of settings and controls are accessible through the Essential Edition - PARTNER® Version Manager Application to configure the voicemail operation.

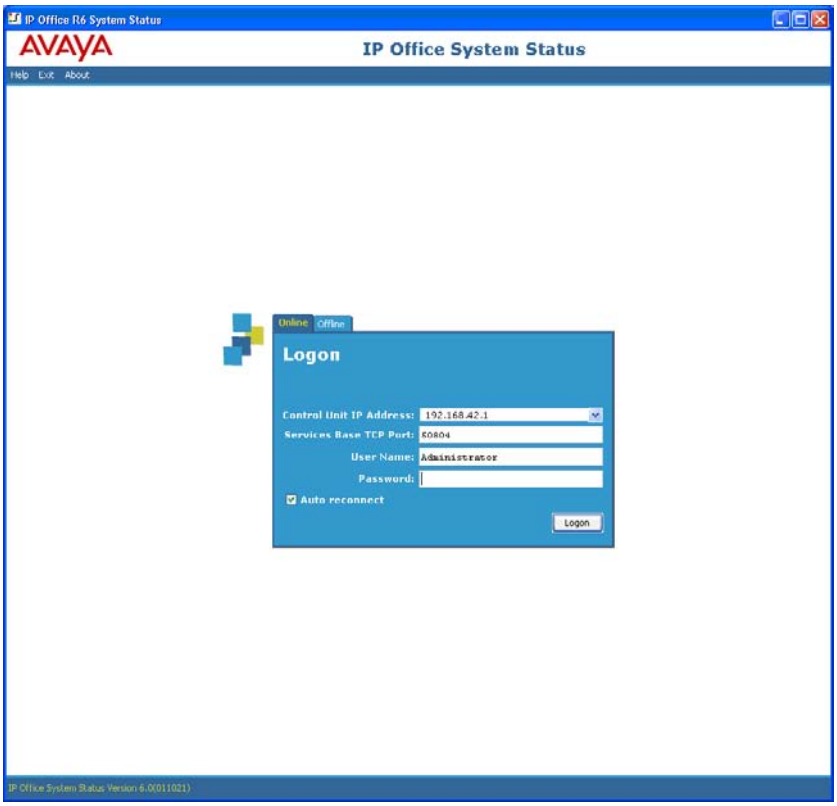
4.8.2 System Status Application (SSA)

This tool provides a wide range of information about the current status of an Essential Edition - PARTNER® system. It includes available resources and components within the system. This includes details of current call in progress. Details of the number of alarms are recorded and the time date of the most recent alarms.

When required for diagnostics escalation SSA is able to take a snap shot image of the IP Office system status including a copy of its current configuration. Use of SSA requires an IP Office service user name and password that has been configured for System Status access in the IP Office security settings.

Details	
DVD	<%APPSDVD%>
License	✗ No license required.

SSA is pre-installed on the system Avaya SD memory card and can be run by selecting File | Advanced | System Status from the main menu



Respond to the password request.

Further SSA information is available in this document.

4.8.3 Monitor

Monitor (also know as System Monitor) is a tool that can show all activity on the IP Office system in great detail. As a consequence, interpretation of Monitor traces requires a high-level of data and telephony protocol knowledge. However, all IP Office installers and maintainers must understand how to run Monitor when necessary as Avaya may request copies of Monitor traces to resolve support issues.

For IP Office 4.0 and higher, the System Status Application has been added to provide more easily interpreted information than is provided by Monitor.

- Two versions of Monitor are included in the IP Office Admin applications suite, one for IP Office 4.0 systems and one for pre-4.0 IP Office systems. Care should be taken to ensure that the correct version is used when monitoring an IP Office system.

Details	
DVD	<%APPSDVD%>
Languages	English only.
License	✗ No license required.

PC Requirements

Minimum PC Requirements	
RAM	128MB
Hard Disk Free Space	10GB
Processor:	
- Pentium	PIII 800MHz
- Celeron	Celeron 3 800Mhz
- AMD	Athlon B 650MHz

Operating System Support	
Server OS:	
2003 Server	✓
2008 Server	✓
Client OS:	
XP Professional	✓
Vista	✓
Windows 7	✓

Ports

Component	Location - %ProgramFiles%\Avaya\IP Office\	Ports
System Monitor	Monitor\sysmonitor.exe	UDP 50794.

4.8.4 TAPI

IP Office TAPI is a client PC application that allows TAPI compliant applications to interact with the Essential Edition - PARTNER® Version. The IP Office TAPI software can be used in one of two modes, depended on whether it is licensed or not. The same software is installed in either case with the licenses, if any, being entered in the Essential Edition - PARTNER® Version system configuration.

- 3rd Party TAPI
  In this licensed mode, TAPI software can be used to control call function on multiple user extension. This mode is used with CTI Developer applications.

Details	
DVD	<%APPSDVD%>
License	✗ Optional. Licenses are required for 3rd party TAPI mode operation.

PC Requirements:

Minimum PC Requirements	
RAM	64MB
Hard Disk Free Space	50MB
Processor:	
- Pentium	PIII 800MHz
- Celeron	Celeron 3 800Mhz
- AMD	Athlon B 65-0MHz

Operating System Support	
Server OS:	
2003 Server	✗
2008 Server	✗
Client OS:	
XP Professional	✓
Vista	✓
Windows 7	✗

Ports

Component	Location - %ProgramFiles%\Avaya\IP Office\	Ports
TAPI2	TAPI\tspi2w.tsp	UDP 50797.

- DevLink
  Provides a real-time event stream in addition to the SMDR interface provided in Essential Edition - PARTNER® Version SMDR. The real-time event stream takes the form of a call record, which is issued whenever the state of any endpoint of a call changes (typically there are two end points on a call, but for some circumstances, such as conference calls, intruded calls there may be more).

4.8.5 Call Logging Applications

A wide range of 3rd -party applications exist to provide call logging and accounting for telephone systems. The Essential Edition - PARTNER® Version has a number of options for providing call details to those applications.

- Direct SMDR Output
  The IP Office control unit can directly output SMDR records to a specified IP address.

Essential Edition - PARTNER® Version has a feature Call Logs that applies to incoming outside calls when caller ID is received.

In Essential Edition - PARTNER® Version, both answered and unanswered calls can be logged on a per extension basis, based on flexible configuration settings that allow logging unanswered calls arriving on specific lines at an extension, and/or logging all calls answered at the extension regardless of the line they arrive on. Every extension will have logs for its own internal answered/missed calls, and its own external answered calls. The size of the call log list for every extension is up to 30.

One extension can be designated to log all incoming outside calls, both answered and unanswered, regardless of where they terminated in the system. You can designate up to three extensions that can log all incoming outside calls, both answered and unanswered, regardless of where they terminated in the system. The size of the call log list for these three extensions is up to 400.

4.9 Physical Ports

The following port types are found on Essential Edition - PARTNER® Version systems:

Port	Found on	Description
ANALOG	ATM4 Trunk card (x4).	Used for the connection of external analog trunks.
AUDIO	Rear of IP Office control unit.	Used for input of an external music on hold source.
Digital Station	ATM4 Combination base card (x2)	Connection of Avaya digital station phones supported by IP Office
DS	Digital Station expansion modules (x16).	Connection of digital phones
RS232/DTE	All control units (x1). All expansion modules (x1).	Used for control unit maintenance under Avaya guidance. On expansion modules not used.
ETR	ETR (Enhanced Tip and Ring), provided by the ETR6 base card.	Used for the connection of DTMF analog phone devices and Avaya ETR phones.
EXPANSION	All control units (x various). All expansion modules except WAN3 (x1).	Used for interconnection of external expansions modules and control units.
EXT O/P	All control units (x1).	Used to control external relay systems. The port provides two switchable (on, off and pulse) controls.
	All modules (x1).	Used for connection of functional or protective ground if required.
LAN	All control units (x various).	10/100Mbps Ethernet LAN ports.
PF	Analog Trunk expansion module (x2).	Analog power fails ports.
PHONE (POT)	Phones expansion modules (x8/x16).	Analog phone extension ports. On older units these ports are labeled as POT ports.
PRI	Single PRI trunk cards (x1). Dual PRI trunk cards (x2).	PRI trunk ports.

4.9.1 ANALOG Port

These ports are analog trunk ports. The ATM4 analog trunk cards only support loop-start trunks.

ANALOG	Pin	Description
	1	Not used.

	2	Not used.
	3	Not used.
	4	Ring.
	5	Tip.
	6	Not used.
	7	Not used.
	8	Not used.

- Off-Hook Current: 25mA.
- ⚠ IMPORTANT
  In all IP Office installations, any module being used for analog trunk connections must be connected to a functional earth.
- ⚠ WARNING
  Within areas of high lightning risk, any module using analog trunk connections must be connected to a protective ground and to surge protection equipment.

4.9.2 Audio Port

This port is found on the rear of the control unit. It is used for the input of an external music-on-hold sound source (not yet implemented in PARTNER® Version). Note that if the IP Office has loaded an internal music-on-hold sound file, any input from this socket is ignored.

The port is a 3.5mm stereo jack socket suitable for use with the most standard audio leads and connection to the 'headphone' output socket of most audio systems.

The use of a 'headphone' socket allows simple volume adjustment. Connection via a 'Line Out' socket may require additional equipment in order to adjust the volume level.

Pin No.	Description
Common	Common
Left	Audio In - Left Channel.
Right	Audio In - Right - Channel.

- Input impedance: 10k /channel. Maximum a.c. signal – 200mV rms.

4.9.3 DS Ports

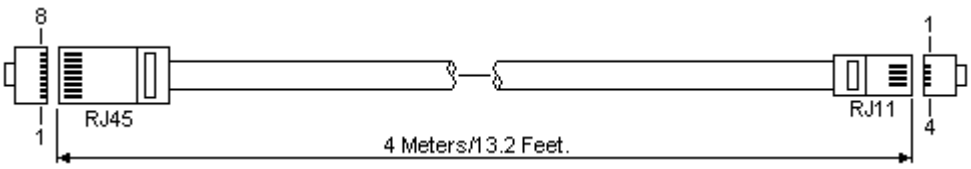
These ports are used for connection from an RJ45 structured cabling system to digital station phones supported by the Essential Edition - PARTNER® Version.

Though the RJ11 to RJ11 cables supplied with most DS phones can be plugged directly into RJ45 ports including those on Essential Edition - PARTNER® Version modules, this is not recommend as the connection lock is not positive and may become disconnected.

DS ports on Digital Station V2 expansion modules can be connected to out-of-building extensions. If this is the case, connection must be made via suitable protective devices at each end and via each building primary protection. In addition the Digital Station module must be connected to a protective ground.

DS ports on IP 500v2 control units must not be connected to out-of-building extensions.

Structured Cabling Line Cord
This is an RJ45 to RJ11 cable suitable for connection from a structured cabling system RJ45 port to a DS phone. It can also be used for two-wire analog phone extensions.



IP Office			Phone	
DS Port	Pin	Description	Pin	Port
RJ45	1	Not used.	–	RJ11

	2	Not used.	1	
	3	Not used.	2	
	4	Signal 1.	3	
	5	Signal 2.	4	
	6	Not used.	5	
	7	Not used.	6	
	8	Not used.	–	
Part number: 700047871				

4.9.4 ETR Port

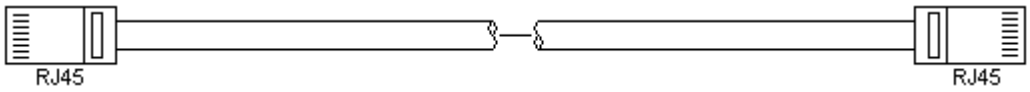
ETR (Enhanced Tip and Ring) ports are provided by the ETR6 base card. They can be used for the connection of DTMF analog phone devices and Avaya ETR phones.

4.9.5 Expansion Port

This type of port is found on the rear of IP 500v2 control units and external expansion modules. It is used for connecting the external expansion modules to the parent control unit.

The connection between these ports should only be done using an Avaya Expansion Interconnect Cable. No other cable type should be used.

Expansion Interconnect Cable
The Expansion Interconnect cable is used to link expansion ports between the control unit and external expansion module.



- Supply: One cable is normally supplied with each external expansion module.
- Part number: 1m (3'3") Blue cable - 700213457, 2m (6'6") Yellow cable - 700472871.

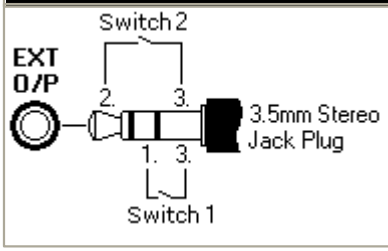
4.9.6 EXT O/P Port

The Essential Edition - PARTNER® Version control unit is equipped with a EXT O/P port. The port is marked as EXT O/P and is located on the back of the control unit adjacent to the power supply input socket and uses a standard 3.5mm stereo jack plug for connection.

The port can be used to control up to two external devices such as door entry relay switches. The usual application for these switches is to activate relays on door entry systems. However, as long as the criteria for maximum current, voltage and if necessary protection are met, the switches can be used for other applications.

The IP Office is able to open (high resistance), close (low resistance) or pulse (close for 5 seconds and then open) the two switches within the port.

- CAUTION: In installations where this port is connected to a device external to the building, connection must be via a towerMAX SCL/8 Surge Protector and a protective ground connection must be provided on the IP Office control unit. The towerMAX range of devices are supplied by ITWLinx (http://www.itwlinx.com).

EXT O/P	Pin	Description
	1	Switch 1.
	2	Switch 2.
	3	0 Volts (Ground/Chassis)

- Switching Capacity: 0.7A.

- Maximum Voltage: 55V d.c.
- On state resistance: 0.7 ohms.
- Short circuit current: 1A.
- Reverse circuit current capacity: 1.4A.
- Ensure that pins 1 and 2 are always at a positive voltage with respect to pin 3.

3.5mm stereo audio jack plugs are frequently sold as pre-wired sealed modules. It may be necessary to use a multi-meter to determine the wiring connections from an available plug. Typically 3 (common to both relays) is the cable screen.

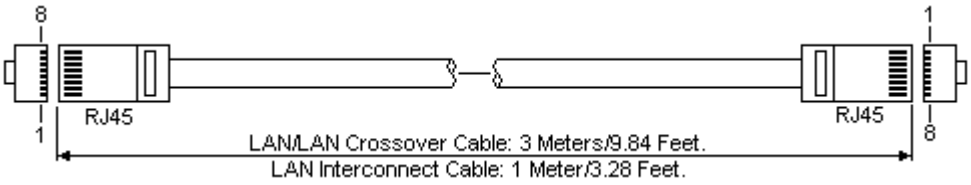
4.9.7 LAN Port

The IP Office control unit has 2 RJ45 Ethernet ports, marked as LAN and WAN. These form a full-duplex managed layer-3 switch. Within the IP Office configuration, the physical LAN port is LAN1, the physical WAN port is designated LAN2 but should not be used.

The LAN port LEDs indicate as follows:

- Green: On = connected, Flashing = Activity.
- Yellow: On = 100Mbps, Off = 10Mbps.

LAN Cables
These are CAT5 UTP cables for connection of various IP devices within the IP Office system.



IP Office							
LAN	Pin	MDIX (Normal)	MDI (Crossover)	Wire	Standard/ Interconnect	Crossover	
RJ45 8 1	1	⬅Rx-A.	➡Tx-A.	White/Orange	1	3	RJ45 8 1
	2	⬅Rx-B.	➡Tx-B.	Orange/White	2	6	
	3	➡Tx-A.	⬅Rx-A.	White/Green	3	1	
	4	Not used.	Not used.	Blue/White	4	4	
	5	Not used.	Not used.	White/Blue	5	5	
	6	➡Tx-B.	⬅Rx-B.	Green/White	6	2	
	7	Not used.	Not used.	White/Brown	7	7	
	8	Not used.	Not used.	Brown/White	8	8	

- Part number:
  - LAN Cable - GREY: 700213481.
    Standard straight LAN cable.
  - LAN Crossover Cable - Black: 700213473.
    LAN crossover cable.

4.9.8 PF Port

These ports are analog extension ports that can be used in conjunction with analog loop-start trunks during power failure to the IP Office system. There are a number of options to connect analog extension ports to analog trunks during power failure. In all cases these only work with loop-start analog trunks. Any phones connected to these ports should be clearly labeled as power fail extensions in accordance with the appropriate national and local regulatory requirements.

When an IP Office 500Analog Phone 8 base card is fitted with an IP Office 500Analog Trunk daughter card, during power failure extension port 8 is connected to analog trunk port 12. The same applies to the IP Office 500ATM Combination card and the IP Office 500 ETR6 base card.

Any phones connected to these ports should be clearly labeled as power fail extensions in accordance with the appropriate national and local regulatory requirements.

PF	Pin	Description
	1	Not used.
	2	Pin 2 is internally connected to pin 5 via a ringer capacitor.
	3	Not used.
	4	Ring.
	5	Tip.
	6	Pin 6 is internally connected to pin 5 via a ringer capacitor.
	7	Not used.
	8	Not used.

- Minimum Wire Size: AWG 26.
- Maximum Cable Length:
  - AWG26: 500m / 1640'.
  - AWG24, AWG22: 1000m / 3280'.

4.9.9 Phone (POT) Port

These ports are analog extension ports. On expansion modules they can be connected to out-of-building extensions. If this is the case, connection must be made via suitable protective devices (IP Office Barrier Box) at each end and via each building primary protection. In addition the Phone module must be connected to a protective ground.

⚠ PHONE ports on Essential Edition - PARTNER® Version control units must not be connected to out-of-building extensions.

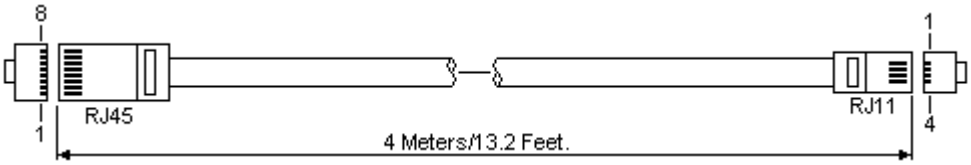
PHONE	Pin	Description
	1	Not used.
	2	Not used.
	3	Not used.
	4	Ring.
	5	Tip.
	6	Not used.
	7	Not used.
	8	Not used.

- REN: 2
- Off-Hook Current: 25mA.
- Ring Voltage: 40V rms.
- Minimum Wire Size: AWG 26.
- Maximum Cable Length:
- AWG26: 0.5km / 1640 feet.
- AWG24, AWG22: 1km / 3280 feet.

Except on some older equipment, these ports do not include a ringing capacitor. Therefore for connection to 4-wire analog phones where this is a requirement, connection should be via a Master socket containing ringing capacitors.

Message waiting is hard wired, 51 volt stepped

Structured Cabling Line Cord
This is an RJ45 to RJ11 cable suitable for connection from a structured cabling system RJ45 port to a DS phone. It can also be used for two-wire analog phone extensions.



IP Office			Phone	
DS Port	Pin	Description	Pin	Port
RJ45	1	Not used.	–	RJ11

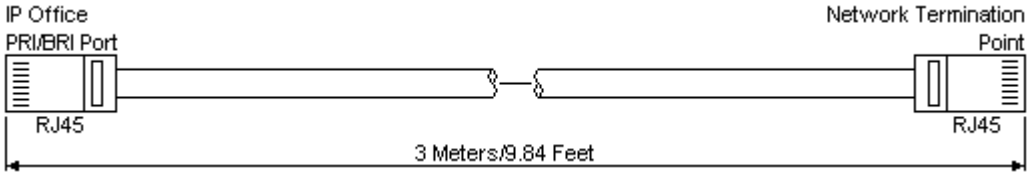
	2	Not used.	1	
	3	Not used.	2	
	4	Signal 1.	3	
	5	Signal 2.	4	
	6	Not used.	5	
	7	Not used.	6	
	8	Not used.	–	

- Part Number: 700047871.

4.9.10 PRI Port

These ports are used for connection to PRI trunk services including E1, T1 and E1-R2.

PRI Trunk Cable
This cable is used to connect from trunk ports to the line providers network termination equipment. If that equipment does not use RJ45 sockets, the cable may need to be stripped and rewired or an alternative cable used. The appropriate signal pin-outs and wire colors are detailed below.



IP Office			Wire	Network Termination	
	RJ45	PRI		PIN	RJ45
RJ45 8 1	1	⬅Rx-A	White/Orange	1	RJ45 8 1
	2	⬅Rx-B	Orange/White	2	
	3	–	White/Green	3	
	4	➡Tx-A	Blue/White	4	
	5	➡Tx-B	White/Blue	5	
	6	–	Green/White	6	
	7	–	White/Brown	7	
	8	–	Brown/White	8	

- Supply: PRI trunks cards are not supplied with these cables.
- Cable Color: Red.
- Part number: 700213440.
- Standard Length: 3m/9'10".

4.9.11 RS232 DTE Port

This port is found on the rear of the control unit and external expansion modules. The DTE ports on external expansion modules are not used.

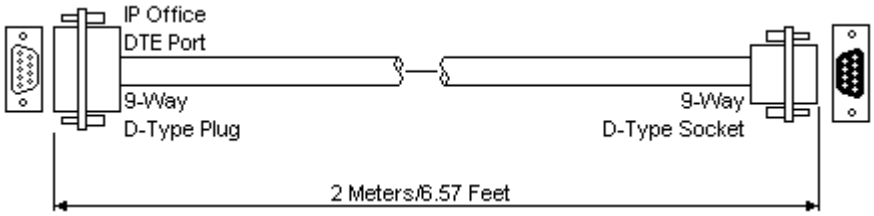
The RS232 DTE port on the control unit can be used for system maintenance and connection of serial terminal adaptors.

An asynchronous terminal program such as HyperTerminal is also required to manage the serial data exchange. Configure this for operation via a PC serial port, as follows:

Bits per second	38,400	Parity	None	Flow Control	None
Data bits	8	Stop Bits	1	Settings | Emulation	TTY

DTE Cables

These cables are used for system maintenance and diagnostics under Avaya guidance. They can also be used for connection of RS232 serial terminal adaptor equipment to the IP Office control unit. The cable required depends on the IP Office control unit. This cable is a "Straight through DB9 female to DB9 male serial cable".



IP Office 9-Way RS232 DTE Port	Signal	PC/Terminal Adaptor
3	⬅Receive data	3
2	➡Transmit Data	2
7	⬅RTS (Request To Send)	7
8	➡CTS (Clear To Send)	8
6	➡DSR (Data Set Ready)	6
5	●Ground	5
1	➡DCD (Data Carrier Detect)	1
4	⬅DTR (Data Terminal Ready)	4
9	➡RI (Ring Indicator)	9

Chapter 5. Administration

5. Administration

This section lists the administration tasks that are involved in making any changes to the Essential Edition - PARTNER® Version set-up. These actions are achieved by using IP Office Manager Essential Edition - PARTNER® Version application. Please refer to the IP Office Manager Essential Edition - PARTNER® Version Admin Tool User Guide for detail.

- Changes to system parameters
- Changes to users, groups and lists
- Trunk set-up
- Auxiliary equipment connection
- Auto attendant set-up
- STUN settings for networks
- Management of the SD card

5.1 Initial Configuration

.

This section covers basic configuration changes required for all Essential Edition - PARTNER® Version systems.

- Change the Default Passwords
- Change the System Name and IP Address / DHCP Settings
- Trunk Configuration
  - Remove Unused Trunks
    Disabling the use of trunks and trunk channels that are not available.
  - Select the Clock Source for Digital Lines
    Altering which digital trunk is used to provide the IP Office with its clock signal for call synchronization.
  - Enter Trunk Prefixes
    On systems where a prefix is being used for external dialing, ensure that the same prefix is added to incoming numbers in order to allow return calls.

5.2 Changing the Default Password

WARNING - Password Change Required
New Essential Edition - PARTNER® Version systems use default security settings. These settings must be changed to make the system secure. As a minimum, you should change the default Remote/Administrator Password if IP Office Manager Essential Edition - PARTNER® Version is to be attached. Failure to do so will render the Essential Edition - PARTNER® Version system potentially unsecured.

Remote administration password

This password controls remote or local access to the Essential Edition - PARTNER® Version system to make administrative changes to the overall set-up such as changes to the configuration or equipment. The administration password can only be changed by an administrator.

1. From the Manager home page select Change Remote / Administration Password. A log in dialog is displayed
2. Provide login detail and enter *password* (case sensitive) as your default password. The change dialog is displayed.
3. Make required changes and click OK.

Remember you are changing the password for accessing the Essential Edition - PARTNER® Version system to which you are attached, not the manager application.

System Password

Once Essential Edition - PARTNER® Version is installed the responsibility for setting this password rests with the customer. You should point this fact out and if required, make the change before you leave as follows:

Change system password using Manager

1. Click the hot link "Change System Settings"

2. In the *System Parameters* box, change system password (Field accepts digits only)

Customer's administrator using a telephone handset

1. Dial #403
2. Dial four chosen digits to set the system password

5.3 SD Card Actions

The SD Card exercises the central control of Essential Edition - PARTNER® Version. There are a number of actions that can be taken as part of IP Office administration as follows:

- Shutdown and start-up an SD card
- Format an SD card
- Read, write and delete files on an SD card
- Copy/Recreate an SD card
- Backup an SD card

5.3.1 Removing SD Cards

⚠ SD Card Removal
SD cards should never be removed while being used. Though the SD card slot LEDs indicate when data is being written to an SD card, lack of flashing LED is not a sufficient safeguard. The IP Office Manager provides methods to shutdown and restart an individual card or to shutdown the Essential Edition - PARTNER® Version system in order to allow removal of an SD card. If the System SD card is removed, licensed features will continue operating for up to 2 hours.

5.3.1.1 Card Shutdown

Before a memory card is removed from an Essential Edition - PARTNER® Version system that is running, the card should be shutdown. Removing a memory card while the system is running may cause file corruption.

Shutting down the memory card disables all services provided by the card including embedded voicemail. Features licensed by the memory card will continue to operate for up to 2 hours.

Card services can be restarted by either reinserting the card or using a Start Up command.

Card Shutdown Using Manager

1. Using IP Office Manager, select File | Advanced | Memory Card Commands | Shutdown.
2. In the Select IP Office dialog, select the IP Office system containing the memory card.
3. Click OK.
4. At the back of the control unit, confirm that the memory card LED is off.
5. The card can now be removed in order to perform the necessary maintenance actions.

⚠ SD Card Removal
SD cards should never be removed while being used. Though the SD card slot LEDs indicate when data is being written to an SD card, lack of flashing LED is not a sufficient safeguard. The IP Office Manager provides methods to shutdown and restart an individual card or to shutdown the Essential Edition - PARTNER® Version system in order to allow removal of an SD card. If the System SD card is removed, licensed features will continue operating for up to 2 hours.

5.3.1.2 Card Startup

Reinserting a card into a system that is already switched on will automatically restart the card. Similarly reinserting the card and rebooting the IP Office system will restart the card. However, if the card has been shutdown but not removed, it can be restarted using Manager without requiring a reboot.

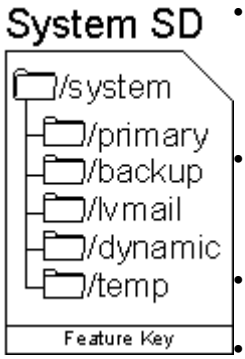
Card Startup Using Manager

1. Using IP Office Manager, select File | Advanced | Memory Card Commands | Startup.
2. Using the Select IP Office menu, select the IP Office system containing the memory card.
3. Click OK.

⚠ After reinsertion, the SD card may not be fully functional until two hours have elapsed.

5.3.2 Directories and Files

The System SD card contains the following folders:



- primary
  Contains the firmware files for the IP Office control unit, external expansion modules and supported phones. The folder can also contain music on hold files and license key files. This is the main set of files used by the IP Office system when booting up. Also contains the stored copy of the IP Office configuration.
- backup
  Contains a copy of the primary folder at some previous point. A backup copy of the primary contents to this folder can be invoked manually (using Manager or SSA) or as part of the IP Office software upgrade using Manager.
- lvmail
  Contains the prompts used by embedded voicemail and the mailbox messages.
- dynamic
  Contains files used by the IP Office and retained through a reboot of the IP Office system.
- temp
  Contains temporary files used by the IP Office and not retained through a reboot of the IP Office system.

The Optional SD card can contain a similar set of folders. These are used as an additional backup or they can be used as the source for upgrading the contents of the System SD card.

Files present on an SD system card can be classified into three differing types:

1. Fixed System files – files essential for system operation that are fixed in name and/or location
2. Dynamic System files – files essential for system operation that are dynamic in nature (e.g. voice messages, Sysmon and SMDR buffer logs)
3. Non system files – all others

Fixed system files comprise:

- IP Office 500 firmware binary
- Expansion binaries
- All current DCP phone binaries
- All current IP phone binaries
- ADMM base station binary
- Embedded voicemail prompts
- Embedded AA clips
- System configuration
- DHCP allocation
- Call logs
- Music On Hold (Not yet implemented)

Dynamic system files comprise:

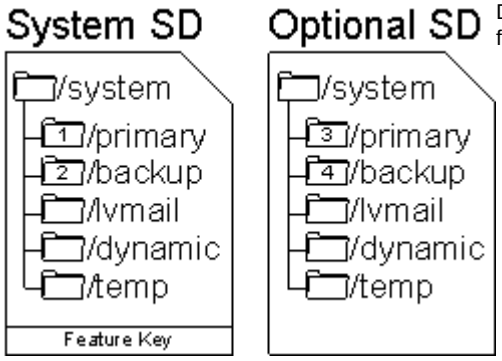
- Embedded voicemail recordings
- Sysmon logs
- SMDR buffer logs

- License merge

Fixed System Files only exist in two directories: '\system*primary*' and '\system\backup'. Some fixed system files must be specifically named. They have the system and read-only file attributes set to reduce inadvertent deletion/modification	Dynamic system files only exist in one directory: '\system\dynamic' and are usually dynamically named. They have the system file attribute set to reduce inadvertent deletion.

Non system files can be any type, including copies of any of the above – it is the directory and name that determine the type of file.

5.3.3 Booting from the SD Cards



During power up, Essential Edition - PARTNER® Version looks for valid firmware to load into memory in the following order.

1. System SD card primary folder.
2. System SD card backup folder.
3. Optional SD card primary folder.
4. Optional SD card backup folder.
5. BootP request to IP Office Manager.

The control unit can be forced to bypass the primary folder by pressing the Aux switch on the rear panel when applying power to the control unit.

5.3.4 SD Card Removal

Before a memory card is removed from an Essential Edition - PARTNER® Version system that is running, the card should be shutdown. Removing a memory card while the system is running may cause file corruption.

Shutting down the memory card disables all services provided by the card including embedded voicemail. Features licensed by the memory card will continue to operate for up to 2 hours.

Card services can be restarted by either reinserting the card or using a Start Up command.

Card Shutdown Using Manager

1. Using IP Office Manager, select File | Advanced | Memory Card Commands | Shutdown.
2. In the Select IP Office dialog, select the IP Office system containing the memory card.
3. Click OK.
4. At the back of the control unit, confirm that the memory card LED is off.
5. The card can now be removed in order to perform the necessary maintenance actions.

Card Reinsertion

Reinserting a card into a system that is already switched on will automatically restart the card. Similarly reinserting the card and rebooting the IP Office system will restart the card. However, if the card has been shutdown but not removed, it can be restarted using Manager without requiring a reboot.

Card Startup Using Manager

1. Using IP Office Manager, select File | Advanced | Memory Card Commands | Startup.

2. Using the Select IP Office menu, select the IP Office system containing the memory card.
3. Click OK.

If the SD card is removed, license information is retained for approximately two hours, thus allowing Essential Edition - PARTNER® Version to continue operation.

When a card is subsequently reinserted the control unit may not function correctly for the first two hours.

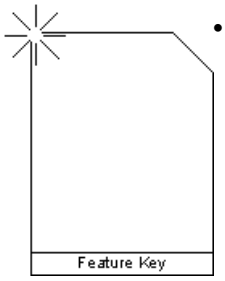
5.3.5 Recreating an IP Office SD Card

The new card must be correctly formatted because, for the System SD slot only Avaya SD cards with a Feature Key should be used.

WARNING
Avaya supplied SD cards should not be formatted using any other method than the format commands withinEssential Edition - PARTNER® Version Manager and IP Office System Status Application. Formatting the cards using any other method will remove the feature key used for IP Office licensing from the card.

Note: This task requires a PC with an SD card read/write drive attached and IP Office Manager Essential Edition - PARTNER® Version software installed

Only this method should be used for formatting an Avaya SD card. Using IP Office Essential Edition - PARTNER® Version Manager ensures that special files required for Essential Edition - PARTNER® Version operation are created and that the Feature Key information is retained.



- WARNING: All File Will Be Erased
Note that this action will erase any existing files and folders on the card. Once a card has been formatted, the folders and files required for Essential Edition - PARTNER® Version operation can be loaded onto the card from the Manager PC using the Recreate IP Office SD Card command.

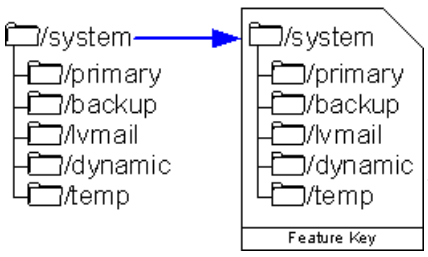
1. Insert the SD card into a reader slot on the Manager computer.
2. From Manager main menu, select File | Advanced | Format IP Office SD Card.
3. Select IP Office Partner Version. This selection just sets the card label shown when viewing the card details. It does not affect the actual formatting. Select the label that matches the files set you will be placing on the card.
4. Browse to the card location and click OK.
5. The status bar at the bottom of Manager displays the progress of the formatting process.
6. When the formatting is complete, you can use the Recreate IP Office SD Card command to load the IP Office folders and files onto the card from the Manager PC.

Format rules: SDHC minimum 4GB FAT32 format (Single partition, SDHC, class2+, FAT32, SPI & SD bus).

Writing an IP Office SD Card

This process will create the folder structure on the SD card and copy the necessary firmware files from those installed with Manager onto the SD card. This includes the binary files for the IP Office 500v2 system, any external expansion modules and phones. It also includes the prompt files for embedded voicemail operation.

This process can be used to upgrade an existing SD card to match the file set installed with Manager. For the card to be used in an IP Office 500v2 system System SD slot the card must be Avaya SD Feature Key card. The card must be correctly formatted (see Format IP Office SD card).



1. Note: This process can take up to 20 minutes depending on the PC. Once started it is recommended that the process is not interrupted.
2. Insert the SD card into a reader slot on the Manager computer.
3. Using Manager, select File | Advanced | Recreate IP Office SD Card.
4. Select IP Office Partner Version. This selection will affect how the Essential Edition - PARTNER® Version system operates when defaulted with this card present in its System SD card slot. .
5. Browse to the card location and click OK.
6. Manager starts creating folders on the SD card and copying the required files into those folders.

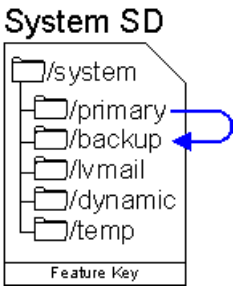
5.3.6 Backing Up the System SD Card

There are two levels of backup that can be performed.

- Backup the System SD Card Primary Folder
  The contents of the primary folder on the card can be copied to the backup folder. They files can then be restored if necessary. Both actions can be performed remotely.
- Backup the Whole System SD Card
  The contents of the whole System SD card can be copied to the Optional SD card. While this can be done remotely, the contents can only be copied back manually using an SD card reader.

Note that in either case, the configuration file on the System SD card will not contain any changes made by IP Office users since the last overnight backup or the last system shutdown.

5.3.6.1 Backup the System Primary Folder

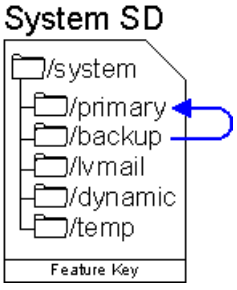


This process copies the contents of the backup folder on the System SD card over the primary folder. Any files with matching file names will be replaced.

Backing up the primary folder to the backup folder using Manager

1. Using Manager main menu, select File | Advanced | Embedded File Management.
2. From the Select IP Office dialog, tick the box beside the IP Office system you want to work with.
3. The file contents of the memory cards are displayed.
4. Select File | Backup System Files.
5. The contents of the primary folder on the System SD card will be copied to the backup folder.

5.3.6.2 Restore from the System Backup Folder



This process copies the contents of the backup folder on the System SD card over the primary folder. Any files with matching file names will be replaced.

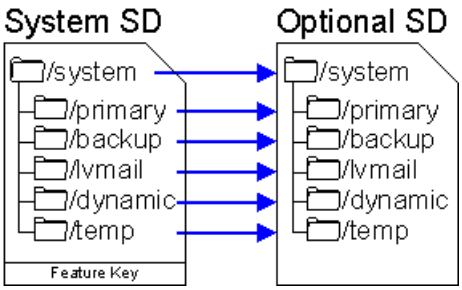
To make the restored files active the IP Office system then needs to be restarted using a reboot.

Restoring the system backup folder to the primary using Manager

1. Using Manager main menu, select File | Advanced | Embedded File Management.
2. From the Select IP Office dialog, tick the box beside the IP Office system you want to work with.
3. The file contents of the memory cards are displayed.

4. Select File | Backup System Files.
5. The contents of the primary folder on the System SD card will be copied to the backup folder.

5.3.6.3 Copying the System Card to the Optional Card



This process copies all files on the System SD card to the Optional SD card. It includes the primary and backup folders and the embedded voicemail files including message files.

Any matching files and folders on the Optional SD card are overwritten.

There is no in-built method for copying the contents of an Optional SD card back onto a System SD card. If that is necessary it must be done by removing the cards and copying files using a PC SDHC compatible card reader.

Copying the system card to the optional card using Manager

1. Using Manager main menu, select File | Advanced | Embedded File Management.
2. From the Select IP Office dialog, tick the box beside the IP Office system you want to work with.
3. The file contents of the memory cards are displayed.
4. Select File | Copy System Card.
5. The contents of the System SD card are copied to the Optional SD card.

5.4 External Trunk Configuration

This section cover the basic requirements for external trunk configuration. The exact method of physical connection and configuration will vary with each trunk provider and so requires local telecoms experience. The topics covered here are general guidelines.

- Clock Quality
  Altering which digital trunk is used to provide the IP Office with its clock signal for call synchronization.
- Unused Trunks
  Disabling the use of trunks and trunk channels that are not available.
- Prefix Dialing
  On systems where a prefix is being used for external dialing, ensuring that the same prefix is added to incoming numbers in order to allow return calls.

Details may be found in the IP Office Manager Essential Edition - PARTNER® Version Administrator Tool User Guide

5.4.1 Clock Quality

Any system where digital trunks are being used requires a clock signal for call synchronization between the switches at each end of the trunk. Typically the clock signal provided by a digital trunk from the central office exchange is the best quality and most reliable source.

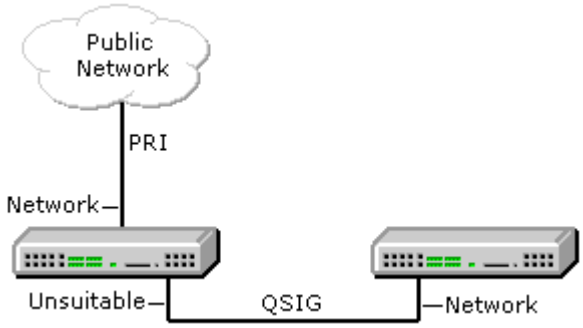
The Essential Edition - PARTNER® Version can obtain and use the clock signal from any of its digital trunks. However it will only use one trunk for its clock signal at any time and will ignore any other possible clock sources. If no clock source is available the Essential Edition - PARTNER® Version can use its own internal clock if necessary.

The Clock Quality setting on each line is set to one of the following:

- *Network*
  If available, the clock signal from this trunk can be used as the Essential Edition - PARTNER® Version clock source.

- *Fallback*
  If available, the clock signal from this trunk can be used as the clock source only if none of the trunks set to Network are providing a clock source.
- *Unsuitable*
  The clock source from this trunk is never used as the IP Office clock source.

In the example below the first Essential Edition - PARTNER® Version is set to use the public network trunk as its clock source and ignoring the possible clock source from the QSIG trunk. However the other system is using the QSIG trunk as it clock source.



Source Priority
When multiple trunks with the same setting are providing a clock signal, the trunk used is determined in the following order of slots 1 to 4 and then by port on each slot.

Viewing the Current Clock Source
The current clock source being used by an Essential Edition - PARTNER® Version system is shown on the Resources page within the IP Office System Status Application.

Objective - Set a chosen digital trunk as the network clock source and set all other digital trunks as fallback or unsuitable.

Refer to the IP Office Manager Essential Edition - PARTNER® Version Administrator documentation.

5.4.2 Unused Trunks

Each IP Office trunk card provides a fixed number of trunk ports. For digital trunks each trunk provides a set number of digital channels. In cases where the number of trunks connected to the Essential Edition - PARTNER® Version is lower or the number of channels provided is lower, those unused trunks and channel must be disabled.

- Failure to do this will cause problems with outgoing calls. For example, on a system with an ATM4 trunk card fitted but only two analog trunks actually connected, failure to disable the other two trunks within the Essential Edition - PARTNER® Version configuration will cause 50% of outgoing call attempts to fail.

Objective
Remove unused trunks and channels from the telephone system configuration.

Refer to the IP Office Manager Essential Edition - PARTNER® Version Admin Tool (Manager) User Guide.

5.5 Changing Components

Base cards and external expansions modules must only be removed and added to an Essential Edition - PARTNER® Version system when that system is switched off.

In the sections below, the term component can refer to a card fitted into the control unit or an external expansion module.

Note that for extension ports, by default both an extension entry and a user entry will exist in the Essential Edition - PARTNER® Version configuration. Extension entries can be deleted without deleting the corresponding user entry. This allows retention of the user settings and association of the user with a different extension by changing the extensions Base Extension number to match the user's Extension ID.

Like for Like Replacement

If replacing with a component of the same type no configuration changes are necessary.

1. Switch off the Essential Edition - PARTNER® Version system.
2. Remove the card or external expansion module. Note the card slot or expansion port used as the replacement must be installed in the same position.
3. Install the replacement using the appropriate process for the type of component (Fitting IP Office 500 cards).
4. Restart the IP Office system.

Higher Capacity Replacement

If replacing with a component of the same type but higher capacity, when restarted the IP Office will automatically create configuration entries for the new trunks or extensions/users.

1. Switch off the Essential Edition - PARTNER® Version system..
2. Remove the card or external expansion module. Note the card slot or expansion port used as the replacement must be installed in the same position.
3. Install the replacement using the appropriate process for the type of component (Fitting IP Office 500 cards).
4. Restart the IP Office system.
5. Use Manager to configure the new trunks or extensions/users.

Lower Capacity Replacement

If replacing with a component of the same type but lower capacity, after restarting the IP Office the configuration will need to be edited to remove redundant entries.

1. Switch off the Essential Edition - PARTNER® Version system..
2. Remove the card or external expansion module. Note the card slot or expansion port used as the replacement must be installed in the same position.
3. Install the replacement using the appropriate process for the type of component (Fitting IP Office 500 cards).
4. Restart the IP Office system.
5. Use Manager to delete the trunks or extensions/users in the configuration that are no longer supported by the component installed.

Adding a New Component

If adding a new component to an available slot or port, when restarted the IP Office will automatically create configuration entries for the new trunks or extensions/users.

1. Switch off the Essential Edition - PARTNER® Version system..
2. Install the replacement using the appropriate process for the type of component (Fitting IP Office 500 cards).
3. Restart the IP Office system.
4. Use Manager to configure the new trunks or extensions/users.

Permanent Removal

If permanently removing the component, the configuration will need to be edited to remove redundant trunk or extension/user entries.

1. Switch off the Essential Edition - PARTNER® Version system.
2. Remove the card or external expansion module.
3. Restart the IP Office system.
4. Use Manager to delete the trunks or extensions/users in the configuration that relate to the component removed.
5. In the Control Unit section of the configuration, delete the entry for the component that is no longer present in the system.

Replacement of a Different Type

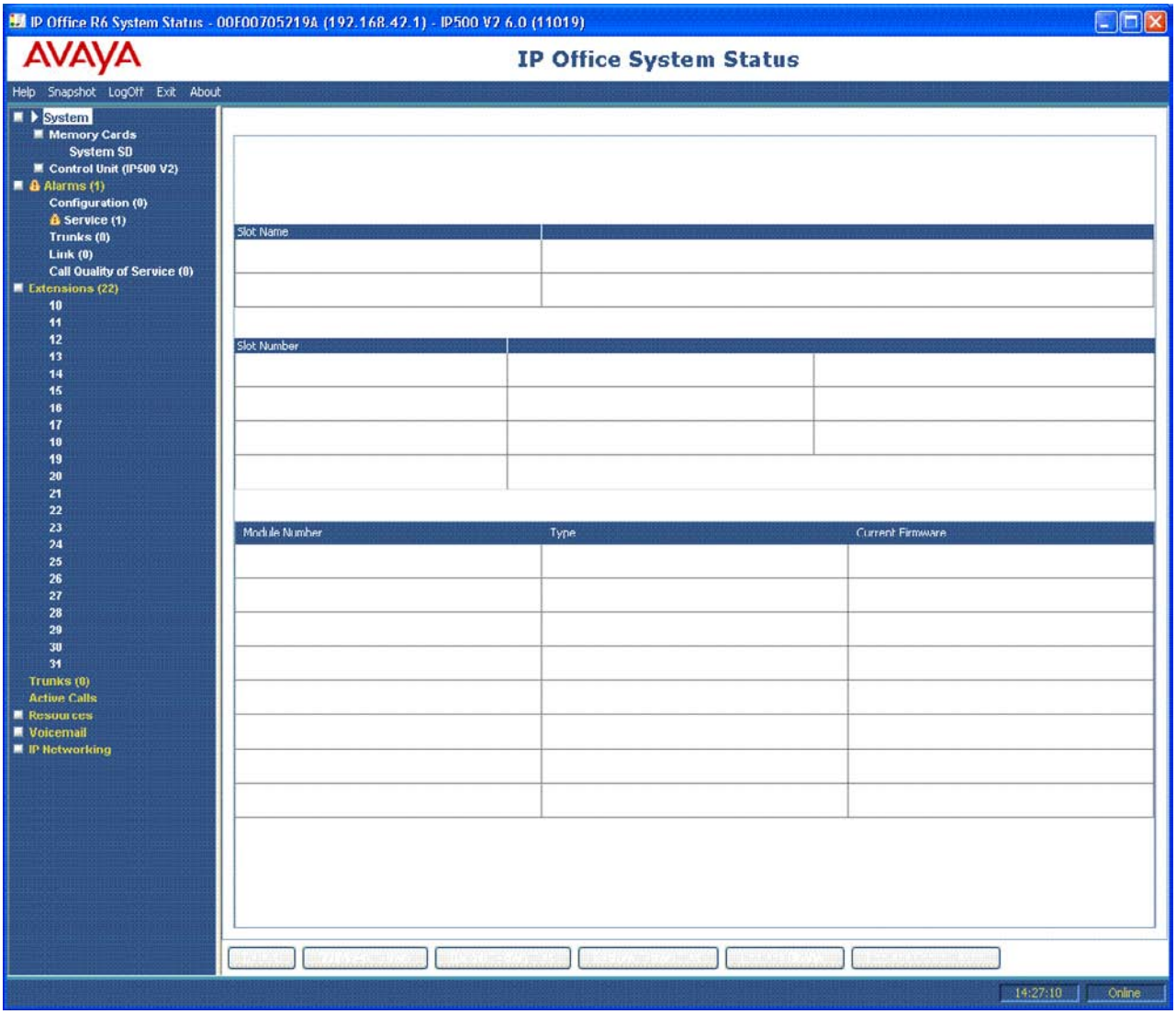
If replacing a component with one of a different type, the process should be divided into two stages. First remove the existing component using the Permanent Removal process above and adjust the configuration and reboot. Then install the new component using the Adding a New Component process above.

5.5.1 Running SSA

Objective - Allow SSA to be used to check the correct installation of additional equipment.

Procedure

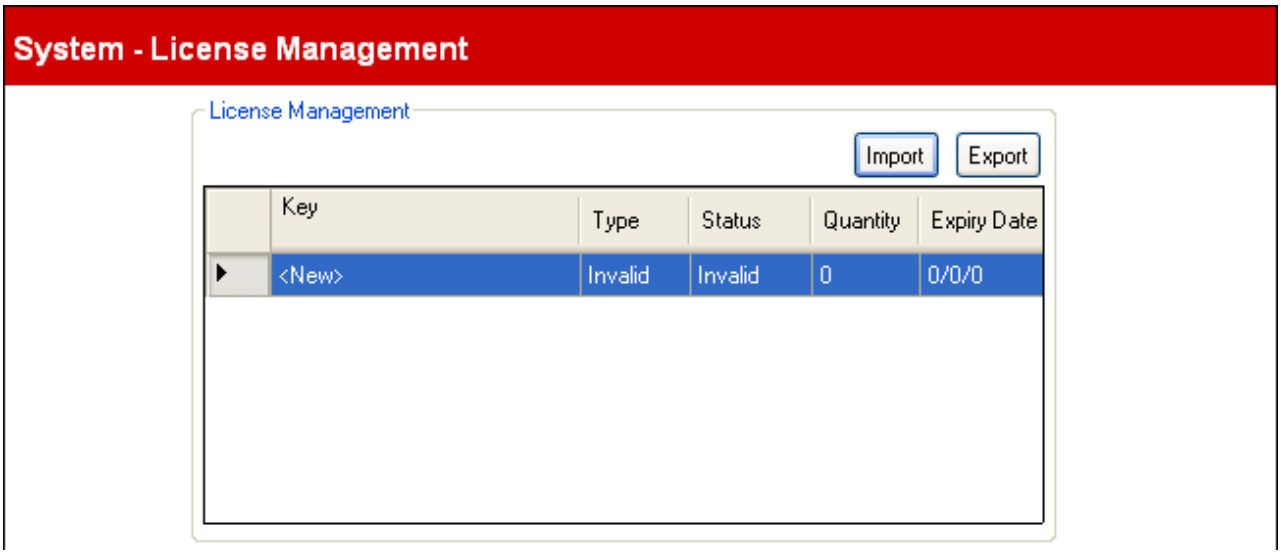
1. From the Manager home page select File | Advanced | System Status.
2. Click Logon.
3. SSA shows *Waiting for connection* and then the Essential Edition - PARTNER® Version system status.



5.6 Adding Licences

License keys strings are used to activate various IP Office features of the Essential Edition - PARTNER® Version system.

Each license is a unique 32-character string based on the feature being licensed and the serial number of the SD card plugged into the system control unit. It is recommended that you use the Import control to import licenses. Alternatively the license keys can be cut and pasted into the Key field. Entering licenses manually is liable to errors caused by mis keying of the correct 32-character string.



This dialog is reached by selecting System | License Management from the Manager *Admin Tasks* pane. It is used to enter licenses required for additional telephone system features. For example licenses are used to enable additional voicemail ports or the twinning feature.

- Import
  Import licenses from a CSV file. Each line of the file should contain a license name and the 32-character license key, each separated by a comma.
- Export
  Export the licenses to a CSV file. (Only if exportable licenses are present on the system)

For each license key entered, the following information is displayed:

- Key
  This is the 32-character license string.
- Type: *Information field, not editable.*
  If the Key is recognized, the name of the feature it licenses is shown in this field. If Invalid is displayed it indicates that the Key has not been correctly entered.
- Status:
  This field shows the status of the license.
  - *Unknown* is shown for newly entered licenses until the configuration is sent to the phone system and then reloaded again.
  - *Valid* is shown if the license key matches the SD card serial number.
  - *Invalid* is shown if the license key does not match the SD card serial number.
  - *Dormant* is shown if the license key is valid but is conditional on another license that is not present.
  - *Obsolete* is shown if the license key is valid but the license is no longer used by the version of software installed in the phone system.
- Quantity: *Information field, not editable.*
  This field indicates how many items are enabled by the license. The meaning of this will vary depending on the feature being licensed.
- Expiry Date: *Information field, not editable.*
  Some licenses have an expiry date. This field will indicate that date.

5.7 Additional Processes

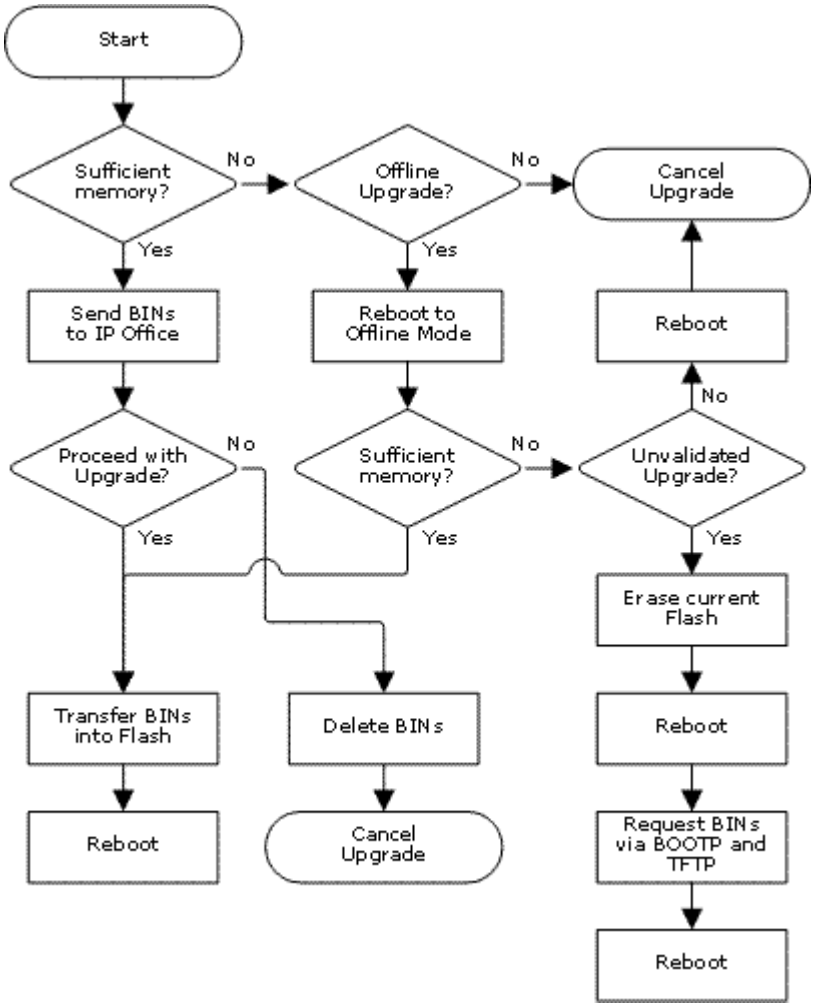
5.7.1 Upgrading the System

Upgrade is performed using the Upgrade Wizard tool within the IP Office Manager Essential Edition - PARTNER® Version application (File | Advanced | Upgrade). It displays the systems it can detect, their existing software level and the levels it has available.

- Check IP Office Technical Bulletins
  Whenever upgrading check the latest IP Office Technical Bulletins for the various IP Office software releases involved before proceeding. These may contain information relating to changes that occurred after this document was completed. Bulletins are available from http://support.avaya.com.
- Multi-Stage Upgrades
  The upgrade path may require several intermediate upgrades. Skipping an intermediate level may lead to incorrect system operation and configuration corruption. Multi-stage upgrades are only necessary for control units. External expansion modules can be upgraded directly between any two levels supported by the module.

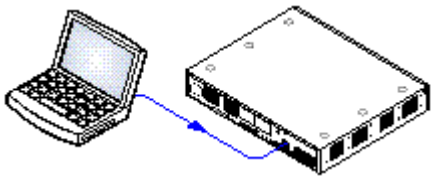
There are two methods that the IP Office may use for upgrading, these are Validated, and Non validated.

- Validated Upgrade
  This is the preferred method and can be used with any IP Office system that already has IP Office software. By default the Validate option within the Upgrade Wizard is pre-selected. During this process, the required BIN files are first transferred to the IP Office RAM memory. Only when the files are received will the IP Office overwrite the existing software in its Flash memory and restart using the new files.
- Non validated Upgrade
  This is the least preferred upgrade method. It should only be used from a PC directly connected to the IP Office and with a fixed IP address on the same LAN domain as the IP Office LAN1. This method involves erasing the existing software in the IP Office Flash memory and then copying the new BIN files directly to the Flash memory. Its uses BOOTP and TFTP and requires a BOOTP entry for the IP Office system to exist on the Manager PC. This method should not be used unless absolutely necessary.



Upgrade Process

5.7.2 Upgrading the Core Software



Objective - Upgrade the control unit to IP Office software.

Information Required

- ☐ Remote/Administrator Password - For a new or defaulted system this is password.

Tools Required

- ☐ Manager PC - The Upgrade Wizard tool is part of the Manager application.

WARNINGS

- Check IP Office Technical Bulletins
  Check the latest IP Office Technical Bulletin for the IP Office software release before proceeding any further. It may contain information relating to changes that occurred after this document was completed. Bulletins are available from http://support.avaya.com.
- Multiple Managers
  If more than one copy of Manager is running it is possible for the Essential Edition - PARTNER® Version to request BIN files from a different Manager than the one that started the upgrade process. Ensure that only one copy of Manager is running when upgrading an Essential Edition - PARTNER® Version system.

Procedure: Upgrade Procedure

1. Using Manager, click and receive the configuration from the Essential Edition - PARTNER® Version. If not already done this action creates a BOOTP entry in Manager for the IP Office system and displays a Essential Edition - PARTNER® Version admin tool screen. This action also confirms communication between the Manager PC and the Essential Edition - PARTNER® Version.
2. Select File | Save Configuration As... and save a copy of the configuration file onto the PC. This action should be completed before upgrading any IP Office system.
3. Select File | Advanced | Upgrade.
4. The Upgrade Wizard is started and scans for IP Office unit, using the Unit/Broadcast address. Adjust this address and click Refresh if the expected modules are not shown.
5. For each unit found, the Upgrade Wiz displays the module type, its current version of software installed in the unit and the software version of the .bin file that Manager has available.
6. For those units and modules where manager detects that it has a higher version available, the tick box next to the unit or module is automatically selected.
7. For those modules which you want to upgrade, tick the check box. For modules where a later version of software is available the check box may have already been automatically ticked.
8. Select Upgrade.
9. The system password is requested. Enter it and click OK.
10. The bin files required are transferred to the system and stored in temporary memory.
11. Once all the files have been transferred, the upgrade wizard will prompt whether it okay to proceed with the upgrade process. Select Yes to continue.
12. Each module being upgraded will delete its existing core software, restart and load the new software file that was transferred. This process may take several minutes for each unit. Do not cancel or close the upgrade wizard while this process is running.
13. Following the upgrade check that the upgrade wizard now shows that the selected units and modules have upgraded. It may be necessary to select Refresh to update the information in the upgrade wizard display.

5.7.3 Changing the IP Address Settings

By default the IP Office system name is set to match its MAC address. This can be changed to something more distinctive.

When a new or defaulted IP Office is switched on, the control unit makes a DHCP requests for IP address settings on each of its LAN interfaces (LAN1 and LAN2).

- If the IP Office receives a response from a DHCP server, it configures itself as a DHCP client using the address details provided by the DHCP server.
- If the IP Office does not receive a response from a DHCP server, it will configure itself as a DHCP server and use the following default address details:

Network Settings	LAN1	LAN2/WAN
IP address	192.168.42.1.	192.168.43.1
IP Mask	255.255.255.0	255.255.255.0
DHCP Mode	Server	Server
No of DHCP IP Addresses	200.	200.

If the IP address and DHCP mode settings are not suitable for the customers network then they should changed. Note that changing the IP Office IP address settings requires it to restart.

1. Connect to the Essential Edition - PARTNER® Version system and start IP Office Manager.
2. In the home page, click Change System Settings.
3. In the System Parameters area Name field, enter a distinctive name for the IP Office system..
4. Make sure the *Receive IP Address Via DHCP Server* box is not checked.
5. Change the IP Address, Sub-Net Mask and Default Gateway settings to match the customer requirements.
6. Click Apply.
7. Click the save icon in the menu bar to save the updated configuration back to the IP Office system.
8. After the IP Office has restarted, unless the Manager PC is using a DHCP client address, change the PC address to match.

5.7.4 System Shutdown

IP Office can be shut down in order to perform maintenance. The shut down can be either indefinite or for a set period of time after which the IP Office will automatically reboot.

During the shut down process, the current configuration in the control unit RAM memory is copied to the control units non-volatile memory.

The SD memory card can be shutdown and restarted separately from the system.

- WARNING
  When shutdown the system cannot be used to make or receive any calls. This is not a polite shutdown, any users calls and services in operation will be stopped.

System Shutdown Using Manager

1. Using IP Office Manager, select File | Advanced | System Shutdown.
2. Using the Select IP Office menu, select the system to be shutdown by activating its checkbox.
3. You will be prompted for log in details
4. Select the shutdown mode. If Indefinite is used, the system can only be restarted by having its power switched off and then on again. If a Timed shutdown is selected, the IP Office will reboot after the set time has elapsed.

System Shutdown Using System Status

1. Start System Status and access the status output of IP Office.
2. In the navigation panel select System.
3. At the bottom of the screen select Shutdown System.
4. Select the time duration for the shutdown or indefinite.

System Shutdown Using a System Phone

This process can be used by any user configured as a System Phone user and using a 1400 Series phone. The user's Login Code is used to restrict access to system administration functions on the phone.

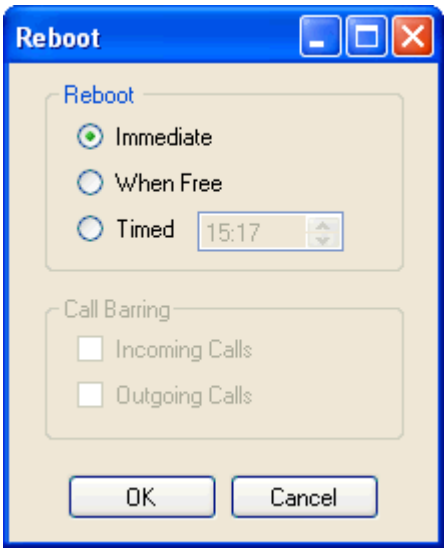
Unlike Manager, a system phone user cannot select an indefinite shutdown. The can set a timed shut down of between 5 minutes and 24 hours.

1. Select Features | Phone User | System Admin.
2. Enter your IP Office user login code.
3. From the menu select System Shutdown.
4. Select a time period for the shutdown. It must be in between 5 minutes and 24 hours.
5. Press Done and then Confirm to begin the shutdown.

5.7.5 Rebooting the System

You can use IP Office Manager to reboot an IP Office system.

1. Using IP Office Manager, select File | Advanced | Reboot.
2. From the Select IP Office menu, locate and select the IP Office system you want to reboot.
3. Click OK. You are prompted to enter a valid user name and password.
4. The type of reboot can then be selected.



- Reboot
  Select when the reboot should occur.
  - Immediate
    Send the configuration and then reboot the IP Office.
  - When Free
    Send the configuration and reboot the IP Office when there are no calls in progress. This mode can be combined with the Call Barring options.
  - Timed
    The same as When Free but waits for a specific time after which it then wait for there to be no calls in progress. The time is specified by the Reboot Time. This mode can be combined with the Call Barring options.
- Reboot Time
  This setting is used when the reboot mode Timed is selected. It sets the time for the IP Office reboot. If the time is after midnight, the IP Office normal daily backup is canceled.
- Call Barring
  These settings can be used when the reboot mode When Free is selected. They bar the sending or receiving of any new calls during reboot.

4. Click OK.

Chapter 6.
Appendices

6. Appendices

This section contains supplementary information.

6.1 Troubleshooting

Problem...	Check this...
Laptop does not seem to communicate with the control unit	1. The default address for an IP Office control unit LAN port is 192.168.42.1/255.255.255.0. If required (should not be necessary), change the TCP/IP properties for the PC LAN port to the following: Fixed IP address 192.168.42.203 Subnet mask 255.255.255.0 Default gateway 192.168.42.1. 2. Connect the LAN cable from the PC LAN port the LAN or LAN1 port on the IP Office control unit. 3. Check that the orange LED lamp on the IP Office LAN port is on. The green LED may also be flickering as it indicates traffic across the LAN connection. 4. To test the connection before running Manager or System Status Application: • Select Start | Run and enter *cmd*. • In the command window that appears enter ping 192.168.42.1. The results should show a number of ping replies from the IP Office. This confirms basic communication between the Manager PC and the IP Office. • If there are no ping replies enter ipconfig. The results should list the IP address settings of the Manager PC as required above. If they do enter exit and check the cable connection.
Telephone doesn't ring	Ringer volume may be too low. Do Not Disturb or Call Forwarding may be turned on. Line Ringing may not be set to Immediate. Telephone may be faulty; switch telephones and try again. If MLC 6 telephone, is Unique Line Ringing (#209) set to a pattern other than 1?
Display shows only 16 characters per line	Possible power outage; unplug the modular telephone cord and replug.
Some "Accented" letters do not display properly	The PARTNER® "Eurostyle" phones (generation 1) do not display some accented characters properly.
Display time and date are not correct	Is your system's clock correct? Set system time and date
Caller ID doesn't work	Are you subscribed to Caller ID? Is the line connected to a module that supports Caller ID? Did someone activate Call Coverage? If so, their extension number will appear.
Telephone Doesn't Work	Is the telephone cord plugged into the right jack on the bottom of the telephone? Telephone may need to be reset; unplug the cord, and with the handset hung up, replug. Telephone cord may be defective; switch cords and try again. Telephone may be defective; switch telephones and try again. There may be a problem with the control unit; switch to a different port and try again.
Intercom Autodialer doesn't work	Is the telephone cord plugged into the right jack of the DSS? Is the Intercom Autodialer plugged into an electric outlet? Telephone cord may be defective; switch cords and try again.
Can't record a call	Two calls may already be recording. You may not have enough ports for Hunt Group 7. Make sure you have a four-port mail system. You may not have enough ports programmed in Hunt Group 7.
Standard phone message waiting light doesn't light	Telephone may be part of a combination extension that includes a system telephone with Background Music on; turn it off. The message waiting light may not be compatible with the system; only phones with LEDs, not neon lights, support message waiting lights. Or, the telephone may not be connected to the proper module.

Problem...	Check this...
Can't make outside calls	Is Forced Account Code Entry assigned to this extension? Is your dial mode (touch-tone or rotary) incorrect? Use Dial Mode (#201) to reset it. Has someone changed the Outgoing Call Restriction for the extension? Did someone lock the extension with Station Lock? Use Station Unlock from extension 10 or 11 to unlock it. Local telephone company may not be receiving signals accurately. If problem is on just one telephone, see "Telephone Doesn't Work" above. Too many tip/ring devices may be trying to dial at once. Local telephone company line may be faulty; unplug each line from its module and test it by using a single-line telephone: • If the trouble doesn't occur on the single-line telephone, the problem is in your control unit. • If the trouble occurs on the single-line telephone, switch the line cord and try again. If this doesn't work, call the telephone company.
Can't make outside calls from pool buttons on pooled extensions	Is Forced Account Code Entry assigned to this extension? Is your dial mode (touch-tone or rotary) incorrect? Use Dial Mode (#201) to reset it. Has someone changed the Pool Access Restriction for the extension? Pool may not be assigned to the extension. There may not be enough lines assigned to the pool to support the usage. One or more local telephone company lines may be faulty; test each line from extension 10.
Calls are answered automatically (a call rings once then disappears as if answered)	Automatic System Answer and/or Direct Extension Dial is turned on, turn it off. an auxiliary device (fax, modem, voice messaging system, answering machine) answers when it should not; either: • Check the device and adjust it to answer on a later ring or turn off auto-answer. • Set the extension's Line Ringing to Delayed Ring.
Auxiliary device doesn't answer	Device may not recognize the system ringing pattern: • Change the extension's ring pattern by using Distinctive Ring (#308). • Change the setting for Intercom Dial Tone (#309) to Machine; the system will generate an outside dial tone for the extension.
Trouble hearing the person you called	If you are using a speakerphone, try using the handset. If you have touch-tone dialing, you may have a faulty telephone or cord. If you have rotary dialing, the Rotary Dialing Timeout (#108) interval is too long; reset it.
Automatically dialed calls beginning with star codes are miss dialed	Setting may not be inserting a long enough pause; use Star Code Dial Delay (#410) to increase setting. Recall feature isn't working. Increase Recall Timer Duration (#107) by 100 milliseconds. If using the feature disconnects the call, decrease Recall Timer Duration by 100 milliseconds.
Call rings continuously, but no one at other end	You may be using Automatic System Answer or Direct Extension Dial on a system that doesn't support far end disconnect; call your local telephone company and find out if they support it.
Calls on hold are disconnected	Hold Disconnect Time (#203) setting may be too short.
Calls on Automatic System Answer lines are disconnected	Automatic System Answer Mode (#121) may be set to Disconnect; change it to Hold or Ring.
Call on Hold hangs up, but line doesn't disconnect	Hold Disconnect Time (#203) may be too long; try resetting it. Local telephone company does not send a hold release signal; you may need the help of our hotline.
All telephones dead; no dial tone or lights	Power may have been interrupted to the control unit; check the power cord, the on/off switch, and the LEDs on the modules. Power outlet may be faulty; test the outlet with an appliance like a lamp.
Multiple telephones dead; no dial tone or lights	one or more system modules may be out; try reseating the module in the control unit.

6.2 Safety Statements

6.2.1 Lightning Protection/Hazard Symbols

Lightning protectors

The buildings lightning protectors must be verified as follow:

1. Check the lightning protectors, at the trunk cable entry point to the building housing the Avaya IP Office, paying special attention to the lightning protection grounding. Report any problems, in writing, to the telephone company.
2. Equipment that is designed to be connected using internal wiring is typically not lightning protected. Hence, Avaya IP Office extension cabling must not leave the building. For installations where telephones and/or other standard (tip/ring) devices are installed in another building then lightning protection is required (see Out of Building Telephone Installations).

Hazard Symbol

- The shock hazard symbol is intended to alert personnel to electrical hazard or equipment damage. The following precautions must also be observed when installing telephone equipment:

2. Never install telephone wiring during a lightning storm.
3. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
4. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
5. Always use caution when working with telephone lines.

6.2.2 Trunk Interface Modules

To ensure the validation of the approvals, only the following types of trunk interface cards must be fitted in the following IP Office control units.

USA/Canada					
Product	Quad BRI	PRI E1	PRI T1	ATM4	WAN
		Single	Single		
IP Office Essential Edition - PARTNER® Version	✗	✗	✓	✓	✗

6.2.3 Further Information and Product Updates

Further information, including Product and Reference Manual updates, can be obtained from Avaya's Dealers and Distributors, or from Avaya's web site: http://www.avaya.com.

This guide is also available from the Avaya's support web site: http://support.avaya.com.

Support Telephone Numbers
For initial help and support, contact your distributor/supplier. The following contact points are for Avaya authorized partners.

- In the USA only
  Avaya provides a toll-tree Customer Helpline 24 hours a day:
  - Name: Avaya Technical Support Organization (TSO)
  - Customer Helpline: 1 800 628-2888
  - Address: 8744 Lucent Blvd., Highlands Ranch, Colorado, 80129 USA
  - URL: http://support.avaya.com
    If you need assistance when installing, programming, or using your system, call the Helpline or your Avaya representative. Consultation charges may apply.

- Outside the USA
  If you need assistance when installing, programming, or using your system, contact your Avaya representative.
  - URL: http://support.avaya.com

6.2.4 Compliance with FCC Rules

Transmit and Receive Gain Settings for PRI/T1 and Analog Ports

The Gain settings are password controlled for use by qualified installation personnel only and must not be made available to the end user. The default gain settings of 0dB ensures compliance with FCC part 68 section 68.308(b)(5) and TIA/EIA-IS-968 Section 4.5.2.5. "Through transmission amplification from ports for the connection of separately registered equipment or from other network connection ports". Gain setting adjustment by unqualified personnel may result in violation of the FCC rules. Qualified personnel may adjust gain settings above these levels only where:

1. Measurement is made to ensure that the power levels sent to line at each network interface connected does not exceed the maximum levels specified in FCC part 68 section 68.308(b) and TIA/EIA-IS-968 Section 4.5 for that specific interface type.
2. Where gain adjustment away from the default values are made, precautions should be taken to ensure that the connection of terminal equipment is controlled by qualified installation personnel.

6.2.5 Port Safety Classification

The Avaya IP Office Essential Edition - PARTNER® Version system has the following ports which are classified as follows:

Port Name	Port Description	Port Classification
PRI port	PRI ISDN connection (NET)	TNV (Operating within the limits of SELV)
Analog ports	Two wire analog trunk	TNV3

Power fail ports	Two wire analog trunk	TNV3
DTE port	Async Data connection.	SELV
Analog Telephone Ports	Telephone Extension ports	TNV2
Digital Telephone Ports	Telephone Extension ports	SELV
WAN port (not used)	WAN connection (NET).	SELV
LAN ports	10/100 BaseT attachment to LAN.	SELV
Expansion ports	Expansion Module connector.	SELV
Audio port	Connector for Music on Hold.	SELV
External Control port	Connector for Controlling Ancillary circuits.	SELV
DC Input port	Connector for DC input power.	SELV

Interconnection circuits shall be selected to provide continued conformance with the requirements of EN 609050:1992/ A3:1995 clause 2.3 for SELV circuits and with the requirements of clause 6 for TNV circuits, after connections between equipment.

6.2.6 EMC Directive

889/336/ EEC (EMC Directive) CISPR 22:1993 including A1 + A2, AS/NZ 3548:1995 (ROW)

- WARNING
  This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his or her own expense.

Canadian Department of Communications (DOC)

''NOTICE: This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment."

6.3 Regulatory Instructions for Use

6.3.1 Canada

This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met.

It does not imply that Industry Canada approved the equipment.

''NOTICE: The Ringer Equivalence Number (REN) for this terminal equipment is 1. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.''

6.3.2 FCC Notification

This equipment is registered with the ACTA (Administrative Council for Terminal Attachments) in accordance with FCC Part 68 of its rules. In compliance with those rules, you are advised of the following:

- Means of Connection
  Connection of this equipment to the telephone network shall be through a standard network interface jack. Connection to 1.544-MBps digital facilities must be through a USOC RJ48C. Connection to the Analog Trunk facilities must be through a USOC RJ45S.
- Notification to the Telephone Companies
  Before connecting this equipment, you or your equipment supplier must notify your local telephone company's business office of the telephone number or numbers you will be using with this equipment.
- The facility interface codes (FIC) for 1.544-MBps digital connection are 04DU9.BN, 04DU9.DN, 04DU9.IKN, 04DU9. ISN.
- The facility interface code (FIC) for analog trunk connection are OL13A, OL13B, OL13C, 02AC2, 02LA2, 02LB2, 02LC2, 02LR2, 02LS2.
- The facility interface code (FIC) for analog trunk connection are OL13A, OL13B, OL13C, 02AC2, 02GS2, 02LA2, 02LB2, 02LC2, 02LR2, 02LF2.
- The Service Order Code (SOC) for 1.544-MBps digital connection is 6.0Y.
- The Service Order Code (SOC) for analog trunk connection is 9.0Y.
- Disconnection
  You must also notify your local telephone company if and when this equipment is permanently disconnected from the line or lines.
- Hearing Aid Compatibility
  The custom telephone sets for this system are compatible with inductively coupled hearing aids as prescribed by the FCC.

Ringer Equivalence Number (REN). The REN is used to determine the number of devices that may be connected to the telephone line. Excessive RENs on the line may result in the devices not ringing in response to an incoming call. In most, but not all, areas, the sum of the RENs should not exceed five. To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the local telephone company to determine the maximum REN for the calling area.

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IP Office Essential Edition

PARTNER® Version Quick Installation Guide

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Documentation information
For the most current versions of documentation, go to the Avaya Support web site (http://www.avaya.com/support) or the IP Office Knowledge Base (http://marketingtools.avaya.com/knowledgebase/).

Avaya Support
Avaya provides a telephone number for you to use to report problems or to ask questions about your contact center. The support telephone number is 1 800 628 2888 in the United States. For additional support telephone numbers, see the Avaya Web site: http://www.avaya.com/support.

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Chapter 1. Introduction

1. Introduction

The Avaya IP Office Essential Edition - PARTNER® Version is a telephone system software that runs on the Avaya IP Office 500v2 hardware platform. It is designed for small businesses and more specifically retail stores, manufacturers, and professional offices; generally with 5 to 25 users.

IP Office Essential Edition - PARTNER® Version is compatible with the Avaya PARTNER® Advanced Communication System (ACS).

This quick guide explains how to install the IP Office Essential Edition - PARTNER® Version system using IP Office Manager Essential Edition - PARTNER® Version. It is intended that installation should be carried out by an Avaya trained technician using a laptop PC with IP Office Manager R6.0+ software installed. When this quick installation is completed systems running with analog trunks, should place and receive calls with no further programming or setup.

- The IP Office Essential Edition system is a converged voice and data communications system. It should therefore only be installed by persons with telephony and IP data network experience.
- Installers must be trained on IP Office systems. Through its Avaya University (AU), Avaya provides a range of training courses including specific IP Office implementation and installation training. It also provides certification schemes for installers to achieve various levels of IP Office accreditation.
- It is the installer's responsibility to ensure that all installation work is done in accordance with local and national regulations and requirements. It is also their responsibility to accurately establish the customer's requirements before installation and to ensure that the installation meets those requirements.
- You should read and understand this documentation before installation. You should also obtain and read the Avaya Technical Bulletins relevant to recent IP Office software and hardware releases to ensure that you are familiar with any changes to the equipment and software.

Associated documents are:

- IP Office Essential Edition - PARTNER® Version - Installation, and Reference Manual
- IP Office Essential Edition - PARTNER® Version - Administrator Tool Guide
- IP Office Essential Edition - PARTNER® Version - Programming and User Guide
- IP Office Essential Edition - PARTNER® Version - ETR Telephone System Programming and User Guide
- Individual User Guides for associated telephone instruments. (ETR, 1400, 3920)

Limitations

This document contains only basic information for systems using standard analog telephone equipment. Essential Edition - PARTNER® Version is an out of the box installation and is meant to be operational for analogue telephone users when it is switched on, without requiring any setting up or pre configuration. For telephones that require system configuration such as SIP or Trunk settings, or if you are not fully familiar with the Avaya IP Office system, you should refer to the installation and configuration instructions contained in the *Avaya IP Office Essential Edition - PARTNER® Version, Installation and Reference Manual* and the *Avaya IP Office Essential Edition - PARTNER® Version, Administrator Tool Guide*.

Note: IP Office Essential Edition can be installed without using Avaya IP Office Manager software but only if it is a very basic system. If this method of installation is used, only those sections of this document listed below are relevant.

Chapter 1 - Introduction (this section) and System Constraints 9 only.

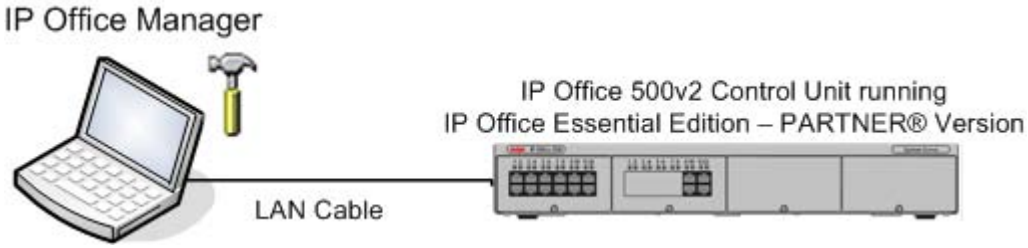
Chapter 2 - Getting Started 12; all

Chapter 3 - System Installation 16; all except Manager Responses 21, Changing Remote/Administration password 22 and Final Actions 24.

1.1 IP Office Manager

Essential Edition - PARTNER® Version Admin Tool (IP Office Manager) is an application for viewing and editing an IP Office system configuration. It is a tool meant primarily for system installers and maintainers. Manager runs on a Windows™ PC and connects to the Essential Edition - PARTNER® Version equipment via Ethernet LAN connections. It is the recommended tool you should use during installation.

When Manager is used with Essential Edition - PARTNER®, the PC running Manager is connected directly to the IP Office 500v2 control unit being installed or updated. Manager detects that an Essential Edition - PARTNER® Version configuration is present and automatically starts in its Essential Edition - PARTNER® mode designed to manage the system.



Manager is part of the IP Office Admin suite of programs. and has its own user manual for Essential Edition - PARTNER®.

It is important to note that the software level of Manager application is 2 higher than the software level of the IP Office 500 system core software with which it is released. For example IP Office Manager R8.0 was released with IP Office R6.0 core software.

Manager can be used to change, or introduce changes, to the Essential Edition - PARTNER® Version system configuration. Easy to use hot links initiate administrator tasks

⚠ IMPORTANT
Manager is an off-line editor. It loads a copy of the Essential Edition - PARTNER® Version system current configuration settings. Changes are made to that copy and it is then sent back to the IP Office 500v2 control unit for those changes to become active. This means that changes to the active configuration in the system that occur between Manager receiving and sending back the copy may be overwritten. For example this may affect changes made by users through their phone or voicemail mailbox after the copy of the configuration is received by Manager.

1.1.1 Installing Manager

Manager 7 is a component of the IP Office Admin Suite of applications. This suite is supplied on the IP Office Administrator Applications DVD. In addition to Manager, the suite includes:

- System Monitor
  This is a tool for system installers and maintainers. Interpreting the information output by System Monitor requires detailed data and telecoms knowledge.
- System Status Application
  This is a Java application that can be used to monitor the status of an IP Office system such as extension, trunks and other resources. It displays current alarms and most recent historical alarms.

PC Requirements

Minimum PC Requirements	
RAM	256MB
Hard Disk Free Space	1GB*
Processor:	
- Pentium	PIII 800MHz
- Celeron	Celeron 3 800Mhz
- AMD	Athlon Opteron, Athlon64/XP
Additional Apps:	
- .NET2	Installed with Manager if not already present.

Operating System Support	
Server OS:	
Windows 2003 Server	✓
Windows 2008 Server	✓
Client OS:	
2000 Professional	✗
XP Professional	✓
Vista Business/Enterprise	✓
Vista Ultimate	✓
Windows 7	✓

*Includes disk space required for .NET2 component.

Ports

Component	Location - %ProgramFiles%\Avaya\IP Office\	Ports
IP Office Manager R6.0+	Manager\manager.exe	TCP Port 50802. TCP Port 50804. TCP Port 50812. UDP Port 50798.
IP Office Upgrade Wizard	Manager\upgradewiz.exe	UDP Port 50798.

1.2 System Constraints

This data is provided for information only. It is not part of the installation procedure.

	Max allowed in system
IP Office Essential Edition - PARTNER® Version Base Cards:	
Phone 8 - Base	3
Phone 2 - Base	3
DS 8 - Base	3
ETR6 – Base (new)	3
6DS+2POTS+VCM10 LE Combination (new)	2
IP Office 500 Daughter Cards:	
ATM 4 Uni - daughter	3
PRI 1 Uni - daughter	1
IP Office 500v2 Expansion Modules:	
IP Office 500v2 PHONE 16	1
IP Office 500v2 DIGITAL STATION 16	1

System capacity for the Essential Edition - PARTNER® Version is flexible and can use combinations of the following hardware components:

- Control unit (4 available slots – maximum of 4 of the following cards):
- The first (left hand) slot of the control unit must have a DS or ETR ports base card fitted. This is because in the Essential Edition - PARTNER® Version, extensions 10 and 11 (ports 1 and 2) must support digital supervisor telephones.
- Up to 2 Combination cards (each provides 6 DS ports; 2 POTS station ports; 4 POTS line ports; and supports up to 10 SIP lines)
- Up to 3 ETR6 cards (each provides 6 ETR station ports)
- Up to 3 DS8 cards (each provides 8 digital station ports)
- Up to 3 Phone 8 cards (each provides 8 POTS station ports)
  - Maximum of 3 because a combination card; DS-8 or ETR-6 must be present in system
- Up to 3 Phone 2 cards (each provides up to 2 POTS station ports)
  - Maximum of 3 because a combination card; DS-8 or ETR-6 must be present in system

An ATM4 daughter card can be added to any ETR6 card or DS card, or Phone card increasing POTS line capacity. 1 PRI/ T1 daughter card may be added to any ETR6 card or DS card or Phone card, increasing digital line capacity.

One expansion module may be added to the main control unit; providing additional growth capability. The supported expansion modules are:

- DS16 Expansion Module (adds 16 additional digital station ports.)
- Phone 16 Expansion Module (adds 16 additional analog station ports)

Based on these configurations; an Essential Edition - PARTNER® Version may support up to 56 lines (1-PRI; 3 ATM4; up to 10 SIP trunks) and up to 48 stations (Up to 18 ETR stations and/or 46 digital ports + 2 POTS). Maximum growth capabilities are software blocked in the system.

Essential Edition - PARTNER® Version will support up to 10 SIP trunks, which can be assigned across multiple SIP service providers.

The following features are pre-assigned:

- Last Number Redial
- Drop
- Voice Mail Access. Each extension has voice mailbox assigned with Automatic Voice Mail Coverage turned on.

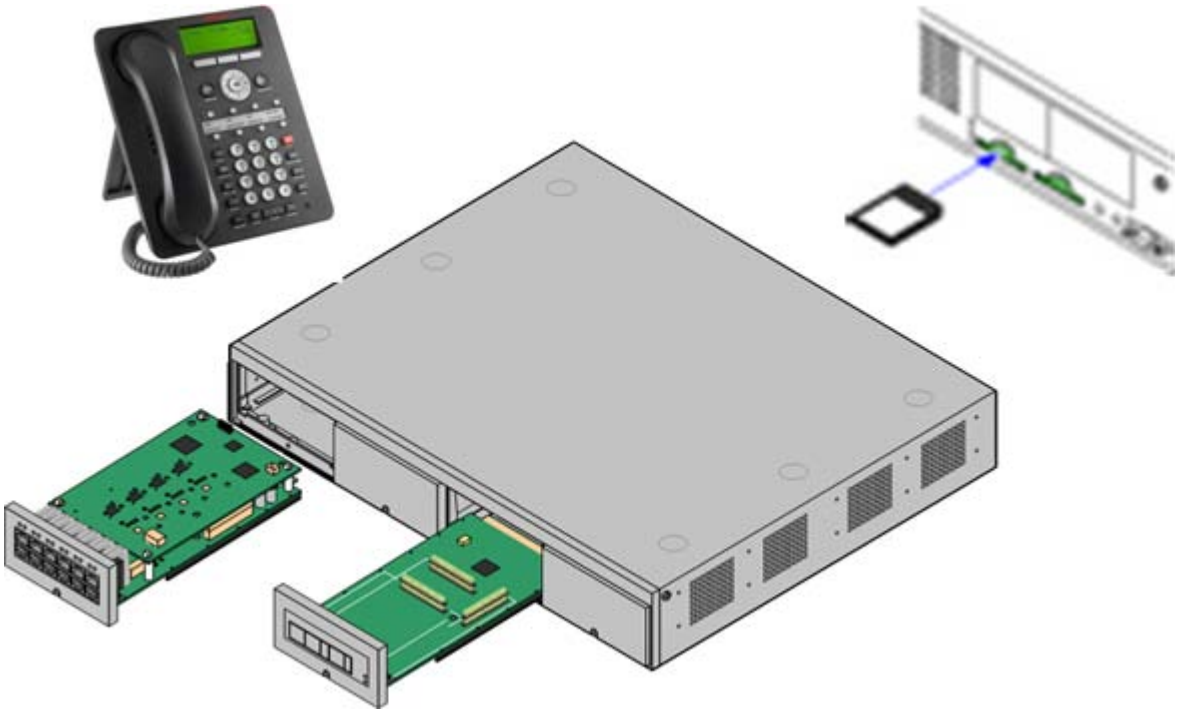
- Recall (CO hook flash)
- Auto Line Selection – L1, L2, etc.

Chapter 2.
Getting Started

2. Getting Started

This chapter describes preparation work that should precede installation of the Essential Edition - PARTNER® Version equipment and software.

System components



Pre requirements

- IP Office 500v2 control unit with power lead
- Base and daughter cards fitted to base cards as necessary, to fulfill customer system requirements
- Minimum of 1 digital (supervisor) telephone provided by the customer
- Avaya SD Card registered to customer
- Mounting kits installed if units are not to be freestanding.

Tools Required

1. Pozidrive No. 1 screwdriver for removal of module covers.
2. Cutter for cable ties.
3. Pozidrive No. 4 screwdriver.
4. Wrist-strap for anti-static grounding or similar.
5. PC running Windows XP/2003.
   During the Staging Installation later in this manual, we recommend that you use a Laptop PC that has the IP Office Manager Essential Edition - PARTNER® Version Administration Tool (Manager) application installed with a LAN cable for direct connection to the control unit, to enable changes to be made in the basic configuration or to set up user lists.
6. Indelible marker for cable labeling.

Parts Required

1. Cable ties.
2. Cabling labels.

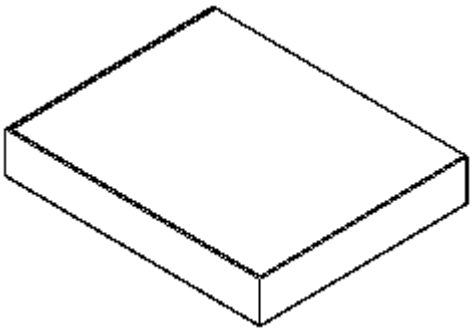
3. Technical Bulletins
   Each Essential Edition - PARTNER® Version software release is normally accompanied by a Technical Bulletin detailing special installation requirements, known issues, etc. Various software releases and their associated Technical Bulletins can also be obtained from http://support.avaya.com.

Pre-installation activity involves the following:

- Evaluating the environmental requirements
- Connecting lines and extensions
- Identifying telephone type to be installed at each extension
- Mounting and connecting auxiliary equipment
- Obtain a Laptop PC which has IP Office Manager R6.0 7 or above installed
- Ensure you have a pre programmed Avaya SD card that is compatible with the system you are about to install.

Note: The pre-installation tasks listed above should have been completed before installing the hardware

2.1 Unpacking



Use the following procedure when unpacking any equipment supplied by Avaya or an Avaya reseller or distributor.

Objective - To check that the correct equipment has been supplied and that no damage has occurred during transit.

Information Required

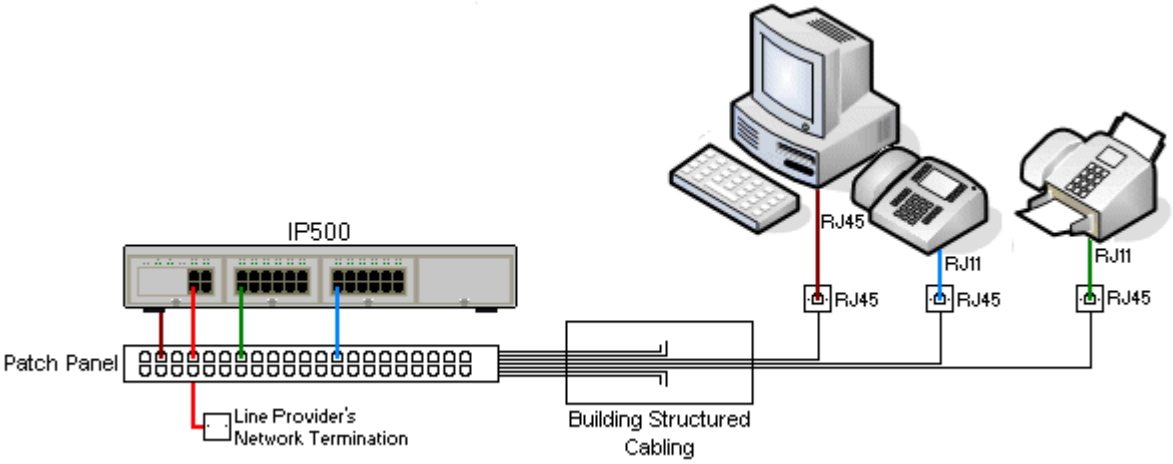
- Equipment Checklist.
  Obtain an installation checklist of the parts and equipment expected.
- Identify the SD memory Card The serial number is printed on the SD, prefixed with either *SN* or *FK*.

- Check for Package Damage.
  Before unpacking any equipment, check for any signs of damage that may have occurred during transit. If any damage exists bring it to the attention of the carrier.
- Check the Correct Parts Have Been Delivered.
  Check all cartons against the packing slip and ensure that you have the correct items. Report any errors or omissions to the equipment supplier.
- Retain All Packaging and Documentation.
  While unpacking the equipment, retain all the packaging material. Fault returns are accepted only if repackaged in the original packaging. If performing a staged installation, the original packaging will also assist when repacking equipment to be moved to the final install site.
- Ensure that Anti-Static Protection Measures are Observed.
  Ensure that anti-static protection measures are observed at all times when handling equipment with exposed electrical circuit boards.
- Check All Parts.
  Visually inspect each item and check that all the necessary documentation and accessory items have been included. Report any errors or omissions to the dealer that supplied the equipment.
- Check All Documentation.
  Ensure that you read and retain any documentation included with the equipment.

2.2 Cabling and Cables

The Essential Edition - PARTNER® Version system is designed primarily for use within an RJ45 structured cabling system using CAT3 unshielded twisted-pair (UTP) cabling and RJ45 sockets.

A structured cabling system is one where cables are run from a central RJ45 patch panel in the communications/data room to individual RJ45 sockets at user's desk. All wires in each cable between the patch panel and the desk socket are connected straight through. This arrangement allows devices connected at the patch panel to be swapped to match the type of device that needs to be connected at the user socket. For example, making one user socket a phone port and another user socket a computer LAN port, without requiring any rewiring of the cables in between.



- Traditional IDC Punchdown Wiring Installations
  Where necessary, the far end RJ45 plug can be stripped from IP Office cables and wired into traditional wiring systems using punch-block connectors. This type of installation should be performed by an experienced wiring technician.
- Trunk Connections
  The majority of IP Office trunk ports use RJ45 connectors for acceptance of an RJ45-to-RJ45 cable. However, connection at the line providers end may require use of a different plug type in order to match the line providers equipment.
- RJ11 Phone Connectors
  Many phones use RJ11 sockets and are supplied with RJ11-to-RJ11 cables. RJ11 plugs can be inserted into RJ45 sockets and in many case the connection will work. However this is not recommended or supported as the connection lock is not truly positive and may become disconnected. An RJ45-to-RJ11 cable should be used for these connections.

Standard IP Office Cables

The following are Avaya standard cables available for use with IP Office systems. The maximum length is applicable if the standard Avaya cable is replaced with an alternative cable.

Cable	Description	Part number	Standard Length	Maximum Length
9-Way DTE Cable	Connects to control unit RS232 DTE port. 9-Way D-type plug to 9-way D-type socket.	–	2m/6'6''.	2m/6'6''.
Structured Cabling DS Line Cable	Connects from RJ45 sockets to RJ11 socketed DS and analog phones.	700047871	4m/13'2''.	See table below.
BRI/PRI Trunk Cable	Connects BRI/PRI trunk ports to the line providers network termination point. RJ45 to RJ45. Red.	700213440	3m/9'10''.	–
Expansion Interconnect Cable	Connects the control unit to expansion modules (except WAN3 modules). RJ45 to RJ45. Blue.	700213457	1m/3'3''.	1m/3'3''.
LAN Cable	Connects from IP Office LAN ports to IP devices. RJ45 to RJ45. Grey.	700213481	3m/9'10''.	100m/328'.

The table below details the maximum total cable distances for DS and analog extensions using different cable types.

Telephone	Unshielded Twisted-Pair (UTP) - 50nf/Km			CW1308
	AWG22 (0.65mm)	AWG24 (0.5mm)	AWG26 (0.4mm)	
1400 Series	1000m/3280'.	1000m/3280'.	400m/1310'.	400m/1310'.
T3 Series (Upn)	1000m/3280'.	1000m/3280'.	400m/1310'.	–
Analog Phones	1000m/3280'.	1000m/ 3280'.	400m/1640'.	800m/2620'.

Chapter 3.
System Installation

3. System Installation

The procedures detailed in this section take you through an installation of Essential Edition - PARTNER® Version. The instructions should all be completed in the order they are given.

Objective - To prepare and connect the major units of an Essential Edition - PARTNER® Version system so that it is capable of being used for making and receiving telephone calls.

This installation section assumes that phones are being connected to IP Office within an existing RJ45 structured cabling system. If phone connections are being made through older punchdown wiring systems then the installer is expected to be qualified and approved for that type of installation.

The basic installation procedure described in this document is as follows:

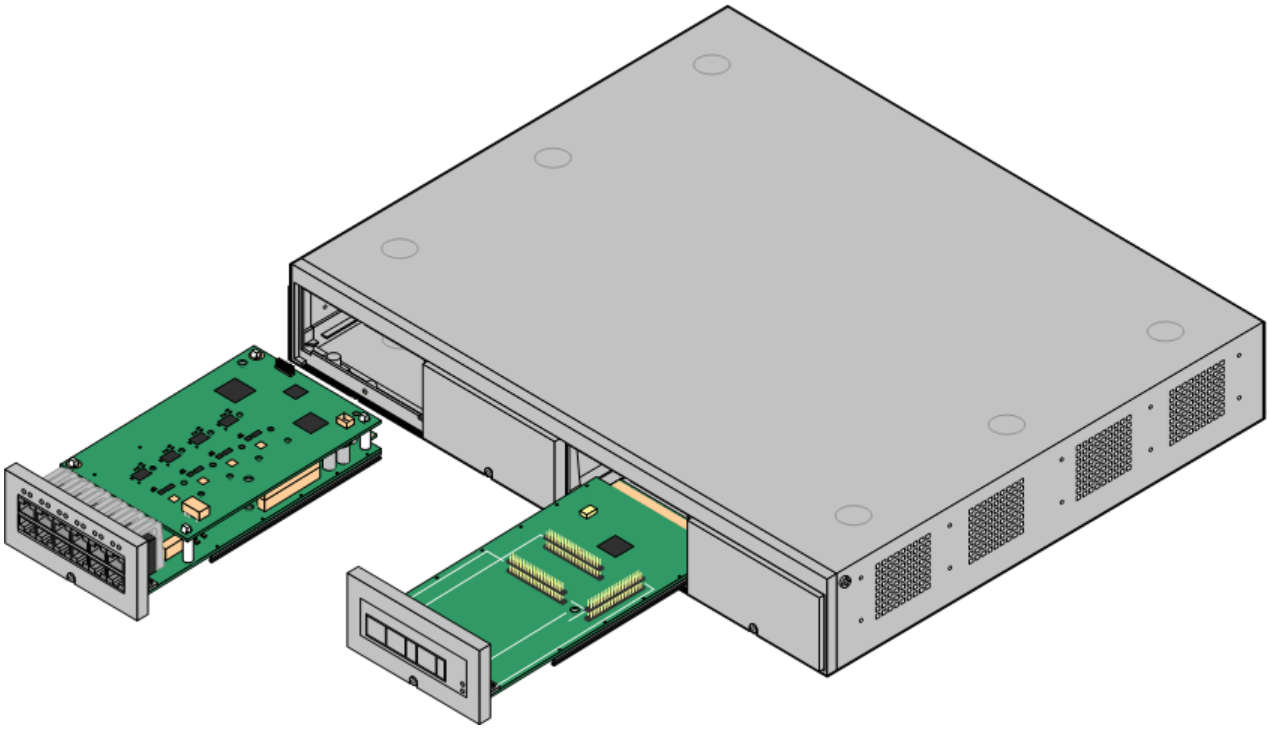
1. Equip 19 the control unit 16 with base cards fitted with daughter cards where needed. Insert base cards 19 working from left to right and do not leave unoccupied slots between cards.
2. Insert the supplied SD 18 card
3. Connect the Manager 7 laptop PC to the control unit 16
4. Connect telephones to extensions 10 and 11 (Admin users)
5. Start up the PC and run the Manager application. Ignore the manager display because as yet, it has not discovered an Essential Edition - PARTNER® Version system to manage.
6. Switch ON the control unit.
7. IP Office automatically configures the connected system and contacts the laptop.
8. Manager software on the PC displays the Welcome screen, identifies basic system components and system settings.
9. Plug in telephone 24 connectors to the remaining extensions.
10. Apply simple housekeeping rules to cables by tying them in associated and clearly labeled bundles.
11. Route cables carefully so that they do not intrude the working area or create a hazard.
12. Manager 7 can be used to prepare user lists, permissions, group memberships and other administration tasks or the customer may do this through handset (TUI) actions detailed in the IP Office Essential Edition - PARTNER® Version - ETR Telephone System Programming and User Guide.

The procedures above are elaborated in the following sections.

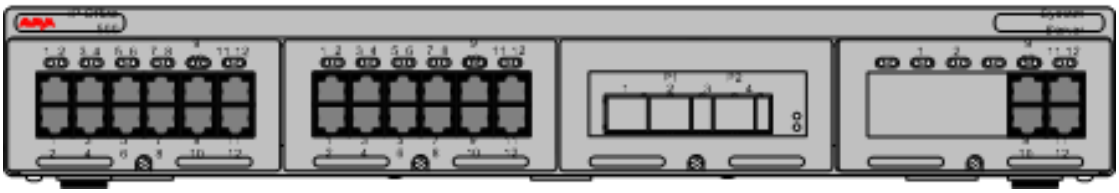
Note:
Connection to analog and digital phones not located in the same building as the IP Office is only supported with the addition of additional protective equipment and additional installation requirements. See "Out of Building Telephone Installations" in the *Avaya IP Office Essential Edition - PARTNER® Version Installation and Reference Manual*.

3.1 Control Unit

The IP Office 500v2 slots are numbered 1 to 4 from left to right. They can be used in any order. (See limitations 9) However if the capacity for a particular type of card is exceeded, the card in the rightmost slot will be disabled. The unit must not be used with uncovered slots as this would affect unit cooling.



Removable base cards



Typical card complement

Feature	Capacity
Maximum Extensions	Up to 48 extension ports of which there may be a maximum of 18 ETR ports.
Conference Parties	Maximum 64 in any individual conference. Silence suppression is applied to conferences with more than 10 parties.
Trunks Cards	Four. Any combination of IP500 trunk daughter cards and up to two IP400 trunk cards.
VCM Card Slots	Four. Up to a maximum of 128 channels using two IP500 VCM cards.
Locales	Supported in Canada, United States, plus Countries that support North American telephony (US) standards
Software Level	• IP Office core software level R6.0 minimum. • Bin file = ip500v2.bin.
Power Supply	Internal power supply unit.
Mounting	Free-standing, rack mounted (requires IP500 Rack Mounting Kit) or wall mounted (requires IP500 Wall Mounting Kit).
Dimensions	Width: 445mm/17.5". Depth: 365mm/14.4". Height: 73mm/2.9"/2U. Clearance: 90mm minimum all sides, 220m at front. 500mm all side when wall mounted.
Memory	Maximum configuration file size: 2048KB.

3.1.1 Grounding

Use of ground connections reduces the likelihood of problems in most telephony and data systems. This is especially important in buildings where multiple items of equipment are interconnected using long cable runs, for example phone and data networks.

All IP Office control units and external expansion modules must be connected to a functional ground. In some cases, such as ground start trunks, in addition to being a protective measure this is a functional requirement for the equipment to operate. In other cases it may be a locale regulatory requirement and or a necessary protective step, for example areas of high lightning risk.

- WARNING
  During installation do not assume that ground points are correctly connected to ground. Test ground points before relying on them to ground connected equipment.

The ground point on IP Office control units and external expansion modules are marked with a or symbol. Ground connections to these points should use a 14 AWG solid wire with either a green sleeve for a functional ground or green and yellow sleeve for a protective ground.

- Additional protective equipment
  In addition to grounding, additional protective equipment will be required in the following situations. Refer to "Out of Building Telephone Installations" in the main *Avaya IP Office Essential Edition - PARTNER® Version Reference Manual*.
  - On any Digital Station or Phones external expansion module connected to an extension located in another building.

3.2 SD Card

The IP Office 500v2 control unit used in Essential Edition - PARTNER® Version has two SD card slots on the rear panel labeled System SD and Optional SD.

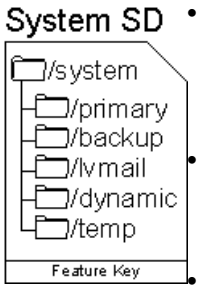
Except during maintenance the System SD slot must contain an Avaya SD card at all times. The files on that card are used when the Essential Edition - PARTNER® Version system is started because the Feature Key serial number only present on Avaya cards is used for the licensing of IP Office features.

The Optional SD slot can be used for an optional second card to store occasional copies of the System SD card or individual files. Non-Avaya cards can be used for this as long as they conform to the standard below:

Format rules: SDHC minimum 4GB FAT32 format (Single partition, SDHC, class2+, FAT32, SPI & SD bus).

SD Card Removal
SD cards should never be removed while being used. Though the SD card slot LEDs indicate when data is being written to an SD card, lack of flashing LED is not a sufficient safeguard. If the System SD card is removed, licensed features will continue operating for up to 2 hours. This allows card replacement on a live system. However the control unit is not fully functional until 2 hours after SD card re-insertion.

The System SD card contains the following folders:



- primary
  Contains the firmware files for the control unit, external expansion modules and supported phones. The folder can also contain music on hold files and license key files. This is the main set of files used by the IP Office system when booting up. Also contains the stored copy of the Essential Edition - PARTNER® Version configuration.
- backup
  Contains a copy of the primary folder at some previous point. A backup copy of the primary contents to this folder can be invoked manually (using Manager or SSA) or as part of the IP Office software upgrade using Manager.
- lvmail
  Contains the prompts used by embedded voicemail and the mailbox messages.
- dynamic
  Contains files used by the Essential Edition - PARTNER® Version and retained through a reboot of the system.
- temp
  Contains temporary files used by the Essential Edition - PARTNER® Version and not retained through a reboot of the system.

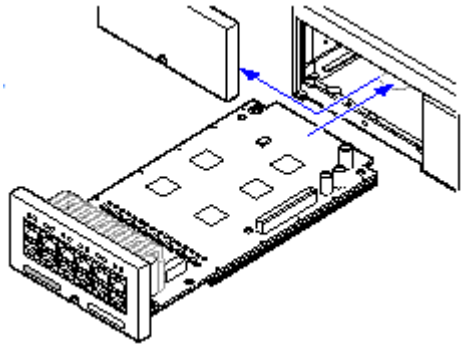
The Optional SD card can contain a similar set of folders. These are used as an additional backup or they can be used as the source for upgrading the contents of the System SD card.

Various IP Office 500v2 features and applications including a license key are required for the system configuration. These are stored on the SD card.

The serial number, also known as the feature key, is printed on the SD, prefixed with either *SN* or *FK*.

The SD Card can be backed up and copied. The Manager application 7 enables updates and changes to be made to the SD Card content. Separate instructions for these tasks are contained in the IP Office Administrator Tool (Manager) user manual.

3.3 Fitting Base Cards



At this stage fit all the internal IP Office 500 cards before powering up the control unit. These processes should be performed with no power to the control unit

General Notes

- The first (left hand) slot of the control unit must have a DS or ETR ports base card fitted. This is because in the Essential Edition - PARTNER® Version, extensions 10 and 11 (ports 1 and 2) must support digital supervisor telephones.
- Remaining cards can be fitted in any order into any available slots. The only exception is the IP Office 500 4-Port Expansion card which can only be installed in right hand slot 4.
- It is recommended that cards are fitted from left to right, otherwise automatic system number allocation could be inconvenient.
- There are restrictions to the number of supported cards of some types. When such a limit 9 is exceeded, the right-most card of that type will not function.
- Ensure that you use the labels supplied to identify the card fitted into the control unit.

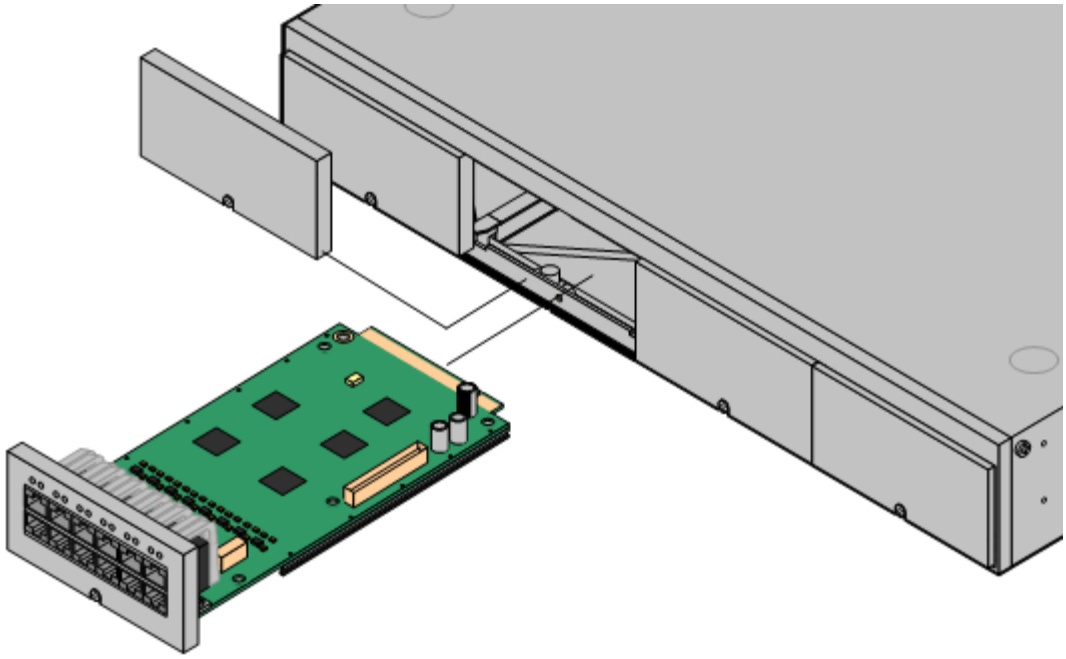
⚠ Warnings

- Correct anti-static protection steps should be taken while handling circuit boards.
- Cards must never be added or removed from the control unit while it has power connected.

- Tools Required
  - 5mm Flat-blade screwdriver.
  - Anti-static wrist strap and ground point.

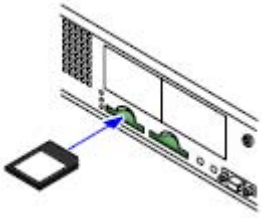
Installing Base Card

1. Check that there is no power to the control unit.
2. Using a flat-bladed screwdriver, remove the cover from the slot on the front of the control unit that will be used for each card being installed. This cover is no longer required but should be retained until installation has been completed.



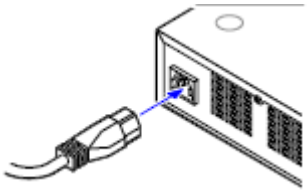
3. Starting at the left hand slot, insert cards. Allowing the card to rest against the bottom of the slot, begin sliding it into the control unit. When half inserted, check that the card rails have engaged with the slot edges by trying to gently rotate it. If the card rotates remove it and begin inserting it again.
4. The card should slide in freely until almost fully inserted. At this point apply pressure at the base of the front of the card to complete insertion of the connector.
5. Using a flat-bladed screwdriver secure the card.

3.4 Going Live



1. With power still off, insert the SD card in the first control unit rear panel slot.

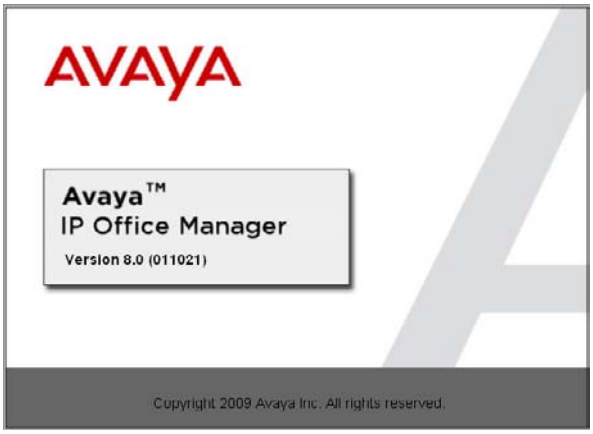
2. Connect the installation laptop via an R45 lead to the LAN socket on the control unit rear panel.



3. Apply power to the control unit

4. As the control unit goes through its start-up cycle, make the following checks:
   - The CPU LED changes to green (rear of unit)
   - The System SD LED changes to green (rear of unit)

- The LAN connection LED flashes and then settles to steady green (rear of unit)
- Card module front lamps light randomly but after approximately 30 second the No.1 lamps flash together once every 5 seconds (front of unit)
- If the control unit does not behave as above power it down and ensure all base card connectors are fully engaged.
- If retry fails, call Avaya support or refer to the Avaya IP Office Essential Edition - PARTNER® Version Reference Manual for more detailed installation instructions and technical information.



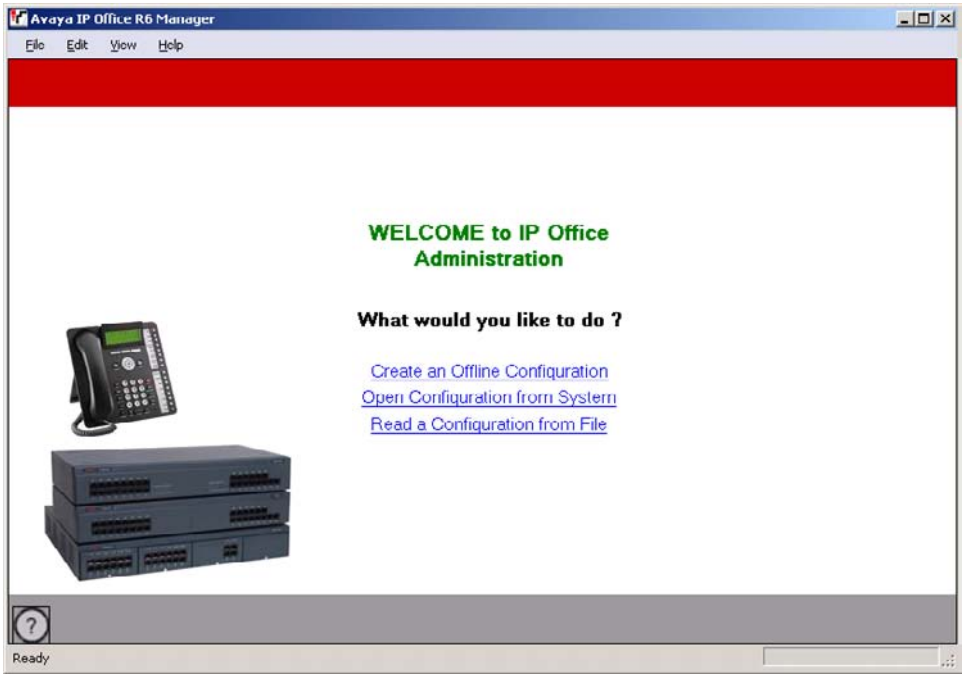
5. Start up Manager on the installation laptop.

The splash screen displays briefly as Manager application starts. No response or action is required

3.5 Manager Responses

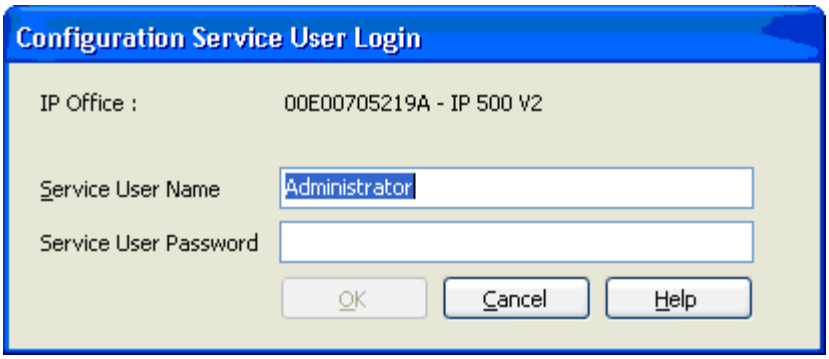
Manager, running on the laptop will detect Essential Edition - PARTNER® Version has started up correctly

During start-up


Avaya IP Office R6 Manager
File Edit View Help
WELCOME to IP Office Administration
What would you like to do ?
Create an Offline Configuration
Open Configuration from System
Read a Configuration from File
Ready

This is called the Welcome view and is presented briefly during application start, followed by log-in session and presentation of the Administration screen.

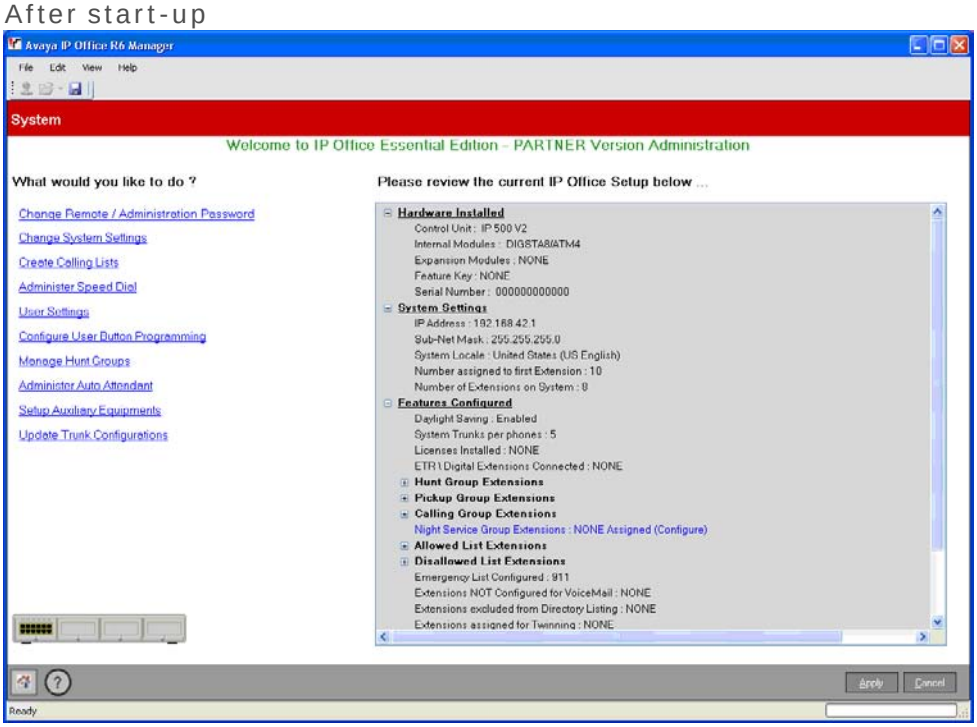
This view remains displayed if Manager is unable to find a configuration file that is compatible with Essential Edition - PARTNER® Version. This can be because the control unit is not powered up, or incorrect connection, thus preventing the manager application accessing the contents of the SD card. . Refer to the separate Admin tool user manual for further instructions



The login dialog is displayed Default Service User password is Administrator

After successful login the welcome screen is replaced by the Administrator home page

After start-up


Avaya IP Office R6 Manager
File Edit View Help
System
Welcome to IP Office Essential Edition - PARTNER Version Administration
What would you like to do ?
Change Remote / Administration Password
Change System Settings
Create Calling Lists
Administer Speed Dial
User Settings
Configure User Button Programming
Manage Hunt Groups
Administer Auto Attendant
Setup Auxiliary Equipments
Update Trunk Configurations
Please review the current IP Office Setup below ...
Hardware Installed
Control Unit : IP 500 V2
Internal Modules : DIGSTA8/ATM4
Expansion Modules : NONE
Feature Key : NONE
Serial Number : 000000000000
System Settings
IP Address : 192.168.42.1
Sub-Net Mask : 255.255.255.0
System Locale : United States (US English)
Number assigned to first Extension : 10
Number of Extensions on System : 8
Features Configured
Daylight Saving : Enabled
System Trunks per phones : 5
Licenses Installed : NONE
ETR1 Digital Extensions Connected : NONE
Hunt Group Extensions
Pickup Group Extensions
Calling Group Extensions
Night Service Group Extensions : NONE Assigned (Configure)
Allowed List Extensions
Disallowed List Extensions
Emergency List Configured : 911
Extensions NOT Configured for VoiceMail : NONE
Extensions excluded from Directory Listing : NONE
Extensions assigned for Twinning : NONE
Apply
Cancel
Ready

The Manager screen changes to this Admin home page as soon as the control unit has completed booting.

This view confirms that installation of the Essential Edition - PARTNER® Version system has been successful

3.6 Changing Password

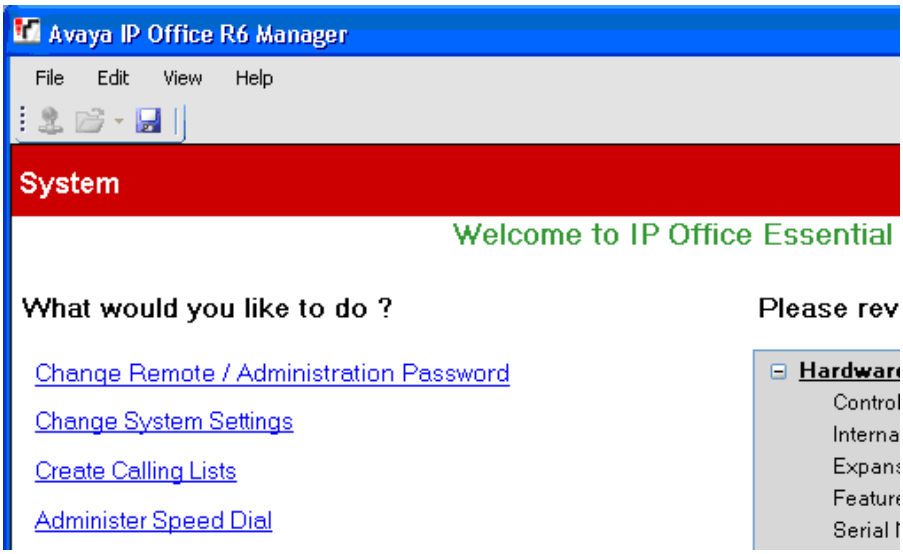
There are two types of password used for the Essential Edition - PARTNER® Version system.

1. Remote administration password - This password controls remote or local access to the system to make administrative changes to the overall set-up such as changes to the configuration or equipment. The administration password can only be changed by an administrator.

2. System password - This password is a four digit password that must be entered at a handset to make changes to local settings such as call barring, night service and other dialling restrictions.

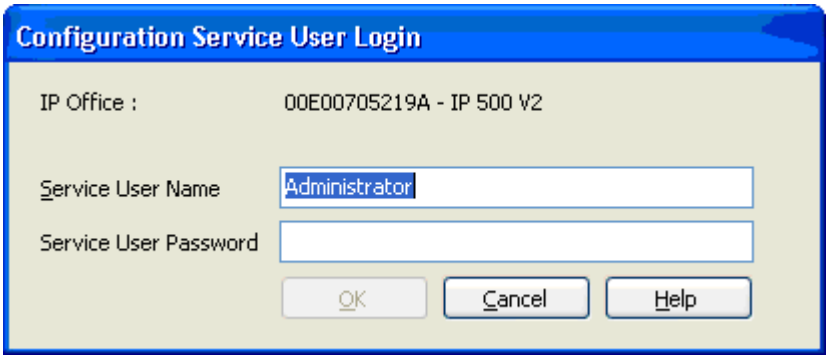
⚠ WARNING - Password Change Required
New Essential Edition - PARTNER® Version systems use default security settings. These settings must be changed to make the system secure. As a minimum, you must change the default Remote/Administrator Password. Failure to do so will render the Essential Edition - PARTNER® Version system potentially unsecured.

1. Start Manager

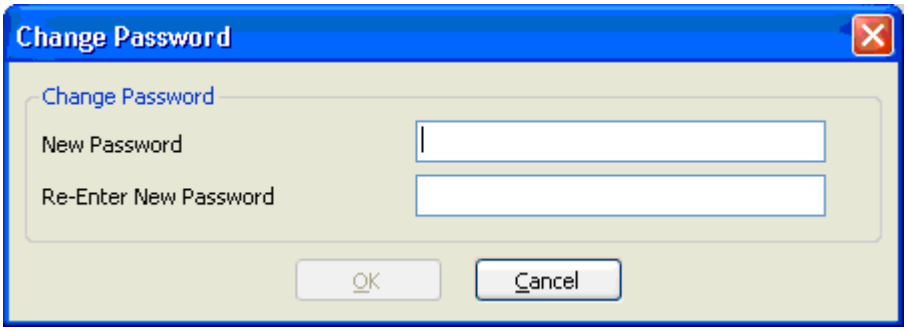


Change Remote/Administrator Password

2. From the Manager home page select Change Remote / Administration Password. A log in dialog is displayed



3. Provide login detail and enter Administrator (case sensitive) as your default password. The change dialog is displayed.



4. Make required changes and click OK.

Remember you are changing the password for accessing the Essential Edition - PARTNER® Version system to which you are attached, not the manager application.

Change System Password

The system password is used before changes may be made to deactivate the night service or override dialing restrictions.

Once Essential Edition - PARTNER® Version is installed the responsibility for setting this password rests with the customer. You should point this fact out and if required, make the change using manager before you leave as follows:

Change using Manager

1. Click the hot link "Change System Settings"

2. In the *System Parameters* box, change system password (Field accepts digits only)

Customer's administrator using a telephone handset

1. Dial #403
2. Dial four chosen digits to set the password

3.7 Connecting the System

If the site already has a patch panel for all outside lines and extensions, you should be able to use the existing wiring to install the system hardware and connect telephones to the system yourself.

During control unit startup

- Extensions and Users
  A user is automatically created for each physical extension port detected in the system. Users are assigned extension numbers starting from 201. User names take the form Extn201, Extn202, ...
- Hunt Group
  A single hunt group 200 called Main is created and the first 10 users are placed into that hunt group as members.
- Incoming Call Routes
  Two default incoming call routes are created. Voice calls are routed to the hunt group Main.

Installing Telephones

After you have installed the IP Office 500v2 control unit and have connected the line and extension cords and gone live 20, you are ready to install the telephones. Installing the telephones includes assembling, testing and connecting, the telephone. As desired, you also can connect an Intercom Autodialer to certain telephones

Assembling PARTNER Telephones

All PARTNER telephones are shipped with a stand for either desk-mounting or wall-mounting the telephone. For other telephones, see the instructions that are provided with the telephone.

Gather the line and extension cords hanging from the control unit and twist-tie or wire-wrap them.

Testing the modules

1. Test the base card modules by doing the following:
   a. Plug a system telephone into the first port on each module.
   b. Press the line button on the telephone for each outside line and listen for a dial tone.

Connecting handsets

1. For telephone systems that are based on a patch (intermediate) connection system:
2. Connect line cords to the line jacks on the modules.
3. Connect the free end of each line cord to the appropriate telephone network interface jack
4. Fill each module before moving to the next module to the right

As each handset is connected any necessary software it contains is automatically checked and updated as necessary.

3.8 Final Actions

You may be required to compile calling lists, build groups and allocate permissions etc. before leaving the customer premises. This depends on arrangements made between your local office and the customer. If required, use Manager to create any lists. Changes to the basic Essential Edition - PARTNER® Version configuration, setting up trunks, adding licenses etc. are detailed in the Avaya IP Office Essential Edition - PARTNER® Version Administrator Tool User Guide identified in the Introduction 7.

As you use Manager to make changes to the Essential Edition - PARTNER® Version setup, you are forced to save or discard changes you have made before leaving any set-up screen to go on to another task. However, you should remember that you are accumulating these changes in a COPY of the control unit configuration file which must be saved back to the SD card before changes are effective. Similarly, system changes such as plugging in handsets during this time are recognized by the Essential Edition - PARTNER® Version system but are undetected by Manager which is working with a copy of the configuration file. Avaya recommend that whilst using Manager you save the configuration file at frequent intervals to ensure the working copy and Manager copies of the configuration file remain as compatible as possible.

Do not leave the Manager application open for long periods and particularly when it is not being used.

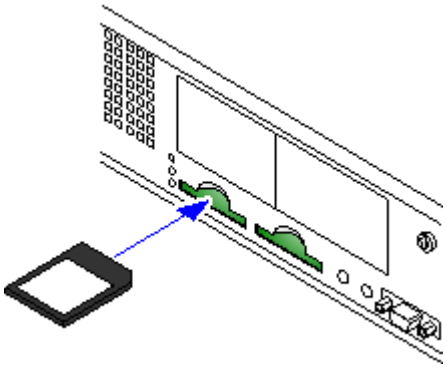
Check system operation and gather all packing materials for disposal.

If appropriate, obtain sign-off signature.

Chapter 4. Troubleshooting

4. Troubleshooting

Install problems



1. Have you insert the correct Avaya System SD card into the System SD slot on the rear of the control unit.
   - Ensure that you have the correct card. There are three versions, A-Law, Mu-Law and Partner Version.
   - Ensure that the card has the level of software required. If necessary the card can be upgraded to match a version of IP Office Manager.
2. The control unit loads firmware from the System SD card with which it uses to upgrade itself and the components installed in the control unit.
3. This process takes approximately a minute. The end of this process is indicated by LED1 on each base card flashing every 5 seconds. LED9 on each base card fitted with a trunk daughter card will also flash every 5 seconds.
4. The control unit will then begin upgrading the external expansion module (if fitted). This is indicated by the red center LED on each module flashing red. The process is completed when the LED changes to steady green.

The LEDs on the rear of the control unit go through the following sequence during a normal start up. Note that the times are approximately only:

LED	4s	4s	12s	5s	2s	5s	5s	10s	10s	Finished
CPU	Orange	Green	Green	Green Red	Green	Green	Green	Green	Green	Green
System SD	Orange	Off	Green	Green	Green	Off	Green	Green	Green Flash	Green
Optional SD If present.	Orange	Off	Green	Green	Green	Off	Off	Green	Green	Green

On the front of the control unit, LED1 on any IP500 base cards fitted is used as follows. LED9 is also used for any trunk daughter cards fitted.

LED	30s	30s	Finished
LED1/LED9	Red	Red Fast Flash	Red Flash every 5 seconds

Checking the LEDs

Control Unit LEDs

LED	Description
Optional SD System SD	Green on = OK, Flashing Green = reading or writing, Red = card not inserted correctly or missing
CPU	• Alternate red/green = Starting up. • Green on = Okay. • Red on = No software. • Flashing Red = Error/Shutdown.

Base Card LEDs

Base Card	LEDs 1 to 8 Usage
All Cards	• LED1 is used for base card status: • Red On = Error • Red Slow Flash = Initializing. • Red Flash every 5 seconds = Card okay. • Red Fast Flash = System shutdown.
IP500 Analog Phone	No status LEDs are used for analog phone extensions.
IP500 Digital Station	• Green On - Phone detected.

Base Card	LEDs 1 to 8 Usage
IP500 VCM	• LEDs 1 to 8 are unlabelled. They are used to indicate voice compression channel usage. Each LED lit represents 12.5% of the available voice compression channel capacity in use (total card capacity rather than licensed capacity).
IP500 4-Port Expansion	LEDs 1 to 8 are used for the expansion ports on the rear of the control unit. LEDs 9 to 12 are used for the card's own expansion ports. Green / On / Expansion module present. Red / Flashing / Initializing. Red / On / Error. Orange / Regular Flash / Base card okay.
IP500 Combination	LEDs 1 to 6 • Green On - Phone detected.

Trunk Daughter Card LEDs

Trunk Daughter Card	LEDs 9 to 12 Usage
All cards	• LED 9 is used for daughter card status. • Red On = Error • Red Slow Flash = Initializing. • Red Flash every 5 seconds = Card okay. • Red Fast Flash = System shutdown.
Analog Trunk	• Green on: Card fitted. • Green flashing: Trunk in use.
PRI Trunk	• Off: No trunk present. • Green on: Trunk present. • Green flashing: Trunk in use. • Red/Green Fast Flash (port 9) or Green Fast Flash (port 10): Alarm indication signal (AIS) from the trunk remote end. • Red with Green Blink (port 9) or Green Blink (port 10): Port in loopback mode (set through IP Office System Monitor).

External Expansion Module LEDs

- Green on = Module okay.
- Red on = Error.
- Red flashing = Module starting up.

Telephone Problems

Problem...	Check this...
Telephone does not ring	Ringer volume may be too low. Do Not Disturb or Call Forwarding may be turned on. Line Ringing may not be set to Immediate. Telephone may be faulty; switch telephones and try again. If MLC 6 telephone, is Unique Line Ringing (#209) set to a pattern other than 1?
Display shows only 16 characters per line	Possible power outage; unplug the modular telephone cord and replug.
Some "Accented" letters do not display properly	The PARTNER® "Eurostyle" phones (generation 1) do not display some accented characters properly.
Display time and date are not correct	Is your system's clock correct? Use System Date (#101) and System Time (#103) to set the date and time.
Caller ID does not work	Are you subscribed to Caller ID? Is the line connected to a module that supports Caller ID? Did someone activate Call Coverage? If so, their extension number will appear.

Telephone does not Work	Is the telephone cord plugged into the right jack on the bottom of the telephone? Telephone may need to be reset; unplug the cord, and with the handset hung up, replug. Telephone cord may be defective; switch cords and try again. Telephone may be defective; switch telephones and try again. There may be a problem with the control unit; switch to a different port and try again.
Intercom Autodialer does not work	Is the telephone cord plugged into the right jack of the DSS? Is the Intercom Autodialer plugged into an electric outlet? Telephone cord may be defective; switch cords and try again.
Cannot record a call	Two calls may already be recording. You may not have enough ports for Hunt Group 7. Make sure you have a four-port mail system. You may not have enough ports programmed in Hunt Group 7.
Standard phone message waiting light does not light	Telephone may be part of a combination extension that includes a system telephone with Background Music on; turn it off. The message waiting light may not be compatible with the system; only phones with LEDs, not neon lights, support message waiting lights. Or, the telephone may not be connected to the proper module.
Cannot make outside calls	Is Forced Account Code Entry assigned to this extension? Is your dial mode (touch-tone or rotary) incorrect? Use Dial Mode (#201) to reset it. Has someone changed the Outgoing Call Restriction for the extension? Did someone lock the extension with Station Lock? Use Station Unlock from extension 10 or 11 to unlock it. Local telephone company may not be receiving signals accurately. If problem is on just one telephone, see “Telephone does not Work” above. Too many tip/ring devices may be trying to dial at once. Local telephone company line may be faulty; unplug each line from its module and test it by using a single-line telephone: • If the trouble does not occur on the single-line telephone, the problem is in your control unit. • If the trouble occurs on the single-line telephone, switch the line cord and try again. If this does not work, call the telephone company.
Can’t make outside calls from pool buttons on pooled extensions	Is Forced Account Code Entry assigned to this extension? Is your dial mode (touch-tone or rotary) incorrect? Use Dial Mode (#201) to reset it. Has someone changed the Pool Access Restriction for the extension? Pool may not be assigned to the extension. There may not be enough lines assigned to the pool to support the usage. One or more local telephone company lines may be faulty; test each line from extension 10.
Calls are answered automatically (a call rings once then disappears as if answered)	Automatic System Answer and/or Direct Extension Dial is turned on, turn it off. an auxiliary device (fax, modem, voice messaging system, answering machine) answers when it should not; either: • Check the device and adjust it to answer on a later ring or turn off auto-answer. • Set the extension’s Line Ringing to Delayed Ring.
Auxiliary device does not answer	Device may not recognize the system ringing pattern: • Change the extension’s ring pattern by using Distinctive Ring (#308).

	• Change the setting for Intercom Dial Tone (#309) to Machine; the system will generate an outside dial tone for the extension.
Trouble hearing the person you called	If you are using a speakerphone, try using the handset. If you have touch-tone dialing, you may have a faulty telephone or cord. If you have rotary dialing, the Rotary Dialing Timeout (#108) interval is too long; reset it.
Automatically dialed calls beginning with star codes are miss dialed	Setting may not be inserting a long enough pause; use Star Code Dial Delay (#410) to increase setting. Recall feature isn't working. Increase Recall Timer Duration (#107) by 100 milliseconds. If using the feature disconnects the call, decrease Recall Timer Duration by 100 milliseconds.
Call rings continuously, but no one at other end	You may be using Automatic System Answer or Direct Extension Dial on a system that does not support far end disconnect; call your local telephone company and find out if they support it.
Calls on hold are disconnected	Hold Disconnect Time (#203) setting may be too short.
Calls on Automatic System Answer lines are disconnected	Automatic System Answer Mode (#121) may be set to Disconnect; change it to Hold or Ring.
Call on Hold hangs up, but line does not disconnect	Hold Disconnect Time (#203) may be too long; try resetting it. Local telephone company does not send a hold release signal; you may need the help of our hotline.
All telephones dead; no dial tone or lights	Power may have been interrupted to the control unit; check the power cord, the on/off switch, and the LEDs on the modules. Power outlet may be faulty; test the outlet with an appliance like a lamp.
Multiple telephones dead; no dial tone or lights	one or more system modules may be out; try reseating the module in the control unit.

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IP Office Essential Edition

PARTNER Administration Tool User Guide

- Issue 1b - (01 February 2010)

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Documentation information
For the most current versions of documentation, go to the Avaya Support web site (http://www.avaya.com/support) or the IP Office Knowledge Base (http://marketingtools.avaya.com/knowledgebase/).

Avaya Support
Avaya provides a telephone number for you to use to report problems or to ask questions about your contact center. The support telephone number is 1 800 628 2888 in the United States. For additional support telephone numbers, see the Avaya Web site: http://www.avaya.com/support.

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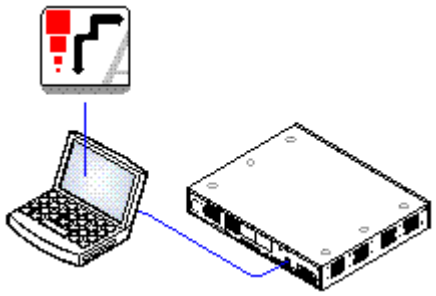
Chapter 1.
The Manager Application

1. The Manager Application

The Avaya IP Office Essential Edition - PARTNER® Version Administration tool application, called *Manager* throughout this document, is an application for viewing and editing an IP Office system configuration. It is a tool meant primarily for system installers and maintainers. Manager runs on a Windows PC and connects to the equipment via the Ethernet LAN connection on the rear of the control unit.



IP Office Manager is used to access all parts of the IP Office Essential Edition configuration. Manager is also used to upgrade the software files used by an IP Office system.

Requirements

- IP Office Administration PC
  A Windows PC (Laptop) with the IP Office Administrator Application suite installed 12.
- LAN Cable
  IP Office 500v2 control units can use a standard RJ45-RJ45 LAN cable.

The Essential Edition - PARTNER® Version Manager application automatically loads a control unit configuration file into memory and displays system information and settings in editor screens for you to check or alter. Manager must then be used to save the modified configuration file back to the control unit.

For customers or maintainers who do not have access to Manager almost all settings described in this document can be achieved through manual TUI commands described in the IP Office Essential Edition ETR Telephone System Programming User Guide.

Associated documents are:

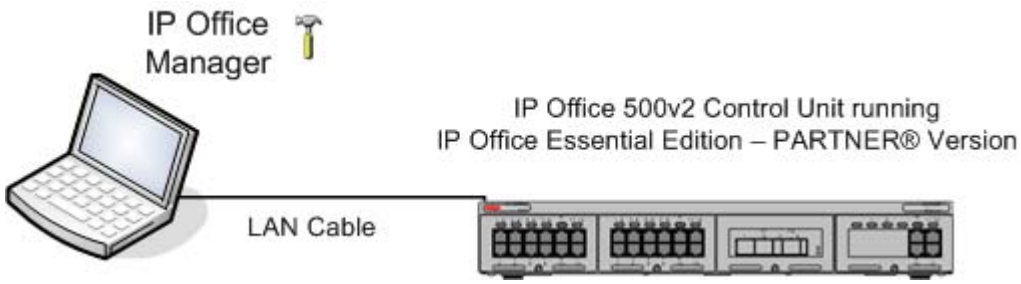
- IP Office Essential Edition - PARTNER® Version - Quick Install Manual
- IP Office Essential Edition - PARTNER® Version - Administrator Tool Guide
- IP Office Essential Edition - PARTNER® Version - Programming and User Guide
- IP Office Essential Edition - PARTNER® Version - ETR Telephone System Programming and User Guide
- Individual User Guides for associated telephone instruments. (ETR, 1400, 3910, 3920)

IP Office Technical Bulletins

Ensure that you have obtained and read the IP Office Technical Bulletin relating to the IP Office software release which you are installing. This bulletin will contain important information that may not have been included in this manual. IP Office Technical Bulletins are available from the Avaya support website *http://support.avaya.com*).

1.1 Introduction

When Manager starts up, it automatically looks for the control unit 9 configuration file. It pulls the file into its memory from the Avaya SD card 8 that is plugged into the rear panel of the IP Office 500v2 control unit running the IP Office Essential Edition - PARTNER® Version.



IMPORTANT

Manager is an off-line editor. It receives a copy of the current configuration settings for the system, from the control unit SD Card 8. Changes can be made to that copy and it must then be sent back 79 to Essential Edition - PARTNER® Version for those changes to become active. This means that any changes to the active configuration in the system, that occurs between Manager receiving and sending back the edited copy, would be overwritten. For example this may affect changes made by users through their phone or voicemail mailbox while Manager holds a copy of the configuration.

Software Compatibility

Manager is part of the IP Office Admin suite of programs 11. You should note that the software level of Manager is 2 higher than the software level of the system core software with which it is released. For example IP Office Manager R8.0 is released with IP Office R6.0 core software.

Document Conventions

The following font attributes are used in this document:

- Bold Used to emphasize, identify commands or highlight menu selections
- *Italic* Used to identify dialog fields, windows, or documents
- Courier Used for code listings, file names and command line content

How this document is organized

This documentation is divided into several parts as follows:

- Introduction
- Preparing Manager
- Administration tasks - contains descriptions of the various actions to make changes to an Essential Edition - PARTNER® Version System. This part describes general activities available from the *Administration* Window Interface:
- Menu commands - describes administration tasks and actions available from the application main drop down menu bar
- Configuration File management - the actions described in this section cover activities concerned with organizing IP Office configuration files that may not necessarily be Essential Edition - PARTNER® Version System files. Some of these tasks can be undertaken off line.
- Appendices - Supplementary Manager information

1.1.1 SD Card

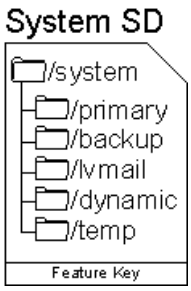
The Avaya SD card exercises central control over the Essential Edition - PARTNER® Version system and acts as the licence authorization for the control unit. The SD card is inserted into the System SD slot on the rear of the control unit.

Except when necessary during maintenance, the System SD slot should contain an Avaya SD card at all times. The files on that card are used when the system is started and the Feature Key serial number, only present on Avaya cards, is used for the licensing of IP Office features.

- The control unit has two SD card slots labeled System SD and Optional SD.
- The system SD card is also used to store copies of core software binary files, configuration files and backups as well as the voice mail application and the system status application.
- Embedded voicemail on the SD card provides 2 channels by default but can be licensed for up to 6 channels total.
- Various commands within the Manager interface enables the SD card contents to be backed up, restored or copied. These actions can also be achieved without Manager, via the handset. Instructions to do this are provided in the system TUI guide.
- The additional SD card slot can be used to store occasional full copies of the System SD card. or as an additional memory card to or from which, files can be copied. Non-Avaya cards can be used for this as long as they conform to the standard below:

  SDHC minimum 4GB FAT32 format (Single partition, SDHC, class2+, FAT32, SPI & SD bus).

The System SD card contains the following folders:



- primary
  Contains the firmware files for the IP Office 500v2 control unit, external expansion modules and supported phones. The folder can also contain music on hold files and license key files. This is the main set of files used by the Essential Edition - PARTNER® Version system when booting up. Also contains the stored copy of the current configuration.
- backup
  Contains a copy of the primary folder at some previous point. This copy is updated automatically every day soon after midnight when the system is idle. A backup copy of the primary contents to this folder can be invoked manually 72 (using Manager or SSA) or as part of the IP Office Essential Edition - PARTNER® Version software upgrade 90 using Manager.
- lvmail
  Contains the prompts used by embedded voicemail and the mailbox messages.
- dynamic
  Contains files used by the Essential Edition - PARTNER® Version system and retained through a reboot of the system.
- temp
  Contains temporary files used by the IP Office and not retained through a reboot of the Essential Edition - PARTNER® Version system.

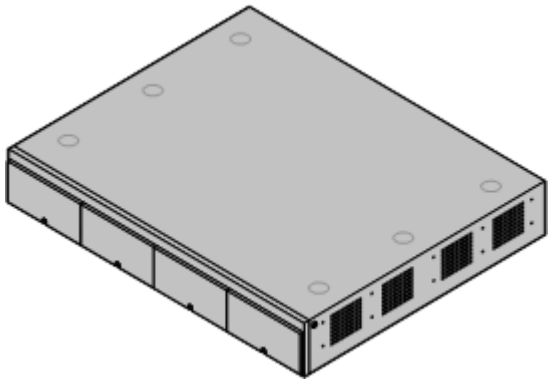
The Optional SD card can contain a similar set of folders. These are used as an additional backup or they can be used as the source for upgrading the contents of the System SD card.

Administration activities concerning the SD card are detailed in Menu Bar Commands, File 88 and in *Managing Configuration* 100 *Files* topic.

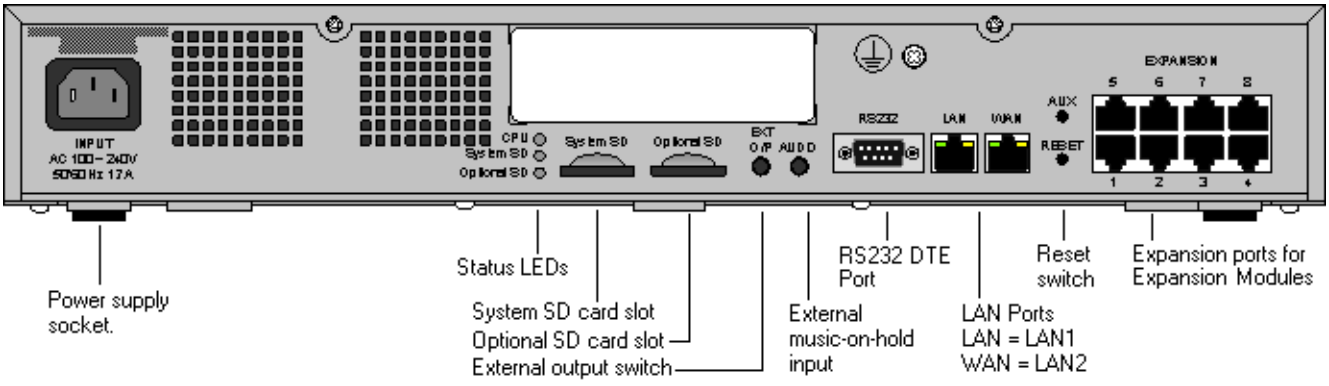
1.1.2 Control Unit

The base item of the Essential Edition - PARTNER® Version system is the system server or control unit. It stores the system configuration and controls system operation. Essential Edition - PARTNER® Version uses the IP Office 500v2 R6.0 control unit or above.

A control unit can be customized by adding various internal cards such as trunk cards. external expansion modules can be also be connected to add additional extension and trunk ports.



The IP Office 500v2 control unit has four front slots for IP Office 500 base cards. It has an internal power supply unit and uses a mandatory dongle in the form of an SD Card 8 plugged into a rear panel slot. It includes a 2 port ethernet LAN switch (layer 3 managed) on the rear.

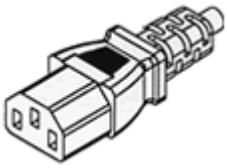


Rear panel

Ports	Description
INPUT	External mains power input socket
CPU LED	Indicates correct operation of the internal firmware (green)
System and Optional SD LEDs	Indicates correct operation of SD card and optional card if fitted
System and Optional Slots	Provided to house SD memory cards. SD must be present at all times Optional slot allows another SD to be read, programmed or written with a backup
EXT O/P	3.5mm Stereo jack socket. Used for switching external relay systems such as door entry controls. The port contains two independent switches controlled by the Essential Edition - PARTNER® Version.
AUDIO	3.5mm Stereo jack socket. Used for external music on hold source input.
RS232	9-Way D-Type socket, serial data connection. Used for system maintenance.
LAN	RJ45 sockets. These ports form a managed layer 3 Ethernet switch. The ports are full-duplex 10/100Mbps auto-sensing, MDI crossover ports.
WAN	Not used by Essential Edition - PARTNER® Version
Aux	Pressing the Aux button while the control unit is starting up, causes the control unit to boot up from backup system files on the SD card instead of the primary files.
Reset	Pressing the button while the control unit is starting up pauses the start-up until the button is released. The effect of pressing the button during normal operation will depend on how long the button is pressed and is indicated by the CPU LED.

Press Duration (seconds)	CPU LED	Action	Summary
0 to 5.	Off	None	None.
5 to 10.	Orange	Reboot When Free	Reboot when free with new incoming/outgoing call barring. A reboot using the reset button is recorded in the Audit Trail.
10 to 30.	Flashing orange	Erase Configuration/ Immediate Reboot	Erase the configuration, alarm log and audit trail. Immediate reboot without waiting for active calls to end.
30 to 40.	Red	Erase All.	Erase configuration, alarm log and core software.
Over 40.	Flashing green	None	None.

EXPANSION	RJ45 socket. Used for direct connection to external expansion modules using the Expansion Interconnect cable supplied with the expansion module. ⚠ Only Port 1 of the extreme right hand expansion ports should be used.
⏚	Used for connection of a function or protective ground. Use of a ground for all systems is recommended and for some locales may be a regulatory requirement.

Name	Description	Country	SAP Code
Control Unit	IP Office 500v2 Base Unit		700476005
SD Card	IPO System SD Card Partner		700479728
IEC60320 C13 Earthed Power Cord 	NEMA5-15P	America	700289770
IP Office 500Rack Mounting Kit	IP Office 500Rack Mounting Kit		700429202
IP Office 500Wall Mounting Kit	IP Office 500Wall Mounting Kit		700430150
IP Office 500Blanking Plate Kit	IP Office 500Blanking Plate Kit		700429194

1.2 Administration Software

Avaya produce a suite of management programs for family of IP Office systems to which IP Office Essential Edition belongs. System Status is on the SD card and can be started from there, but you may need to install Manager and Monitor.

In order to install an Essential Edition - PARTNER® Version system you must be familiar with using the following IP Office applications. They must be available on your installation PC.

Application	Description
Manager	IP Office Manager is used to access all parts of the IP Office Essential Edition configuration. Manager is also used to upgrade the software files used by an IP Office system.
System Status	The IP Office System Status application (SSA) is a reporting tool that provides a wide range of information about the current status of an IP Office system. Its can report the available resources and components within the system and details of calls in progress. Details of the number of alarms are recorded and the time date of the most recent alarms. When required for diagnostics escalation, SSA is able to take a snap shot image of the IP Office system status including a copy of its current configuration. Use of SSA requires an IP Office service user name and password that has been configured for System Status access in the IP Office security settings.
Monitor	Monitor (also know as System Monitor) is a tool that can show all activity on the IP Office Essential Edition system in great detail. As a consequence, interpretation of Monitor traces requires a high-level of data and telephony protocol knowledge. However, all IP Office installers and maintainers must understand how to run Monitor when necessary as Avaya may request copies of Monitor traces to resolve support issues. System Status Application has been added to provide more easily interpreted information than is provided by Monitor. • Two versions of Monitor are included in the IP Office Admin applications suite, one for current IP Office systems and one for pre-R4.0 IP Office systems. Care should be taken to ensure that the correct version is used when monitoring.

Details	
DVD	IP Office Applications DVD
Languages	English only.
License	✗ No license required.

PC Requirements

Minimum PC Requirements	
RAM	128MB
Hard Disk Free Space	10GB
Processor:	
- Pentium	PIII 800MHz
- Celeron	Celeron 3 800Mhz
- AMD	Athlon B 650MHz

Operating System Support	
Server OS:	
2003 Server	✓
2008 Server	✓
Client OS:	
XP Professional	✓
Vista	✓
Windows 7	✓

Ports

Component	Location - %ProgramFiles%\Avaya\IP Office\	Ports
System Monitor	Monitor\sysmonitor.exe	UDP 50794.

1.3 Installing Manager

The Manager application software is on the IP Office Applications DVD, which contains a number of applications for IP Office installers and maintainers.

Requirements

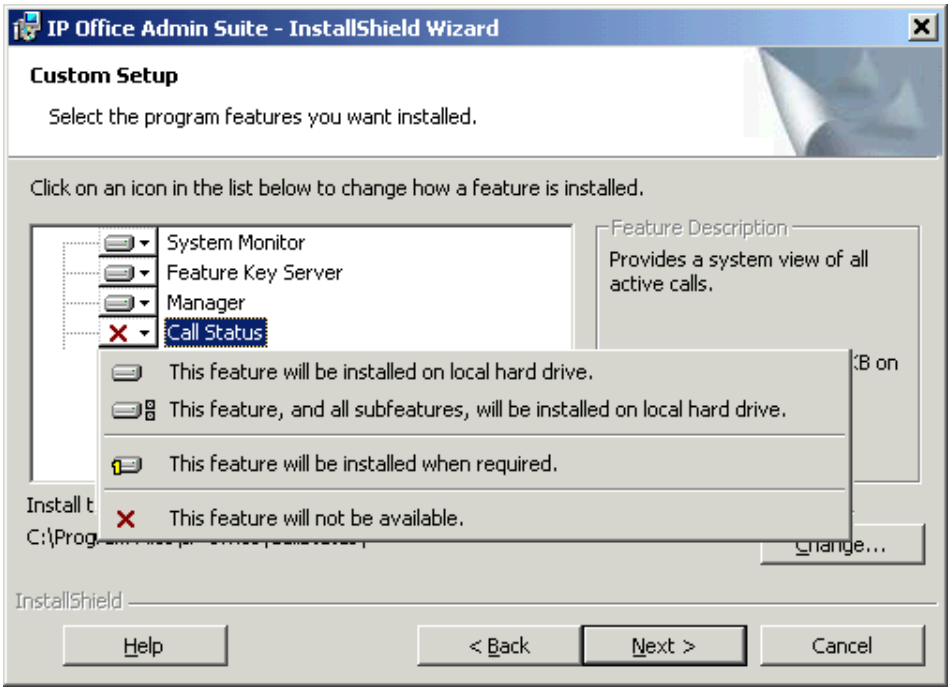
- IP Office Applications DVD
  Alternatively the IP Office Administrator Applications suite can be downloaded from Avaya's support website (*http://support.avaya.com*).
- Windows PC
  This should preferably be a laptop to the specification below. These are the minimum requirements for IP Office Manager. If other applications are to be installed on the PC then their individual requirements should also be meet.

Requirement	Minimum	Recommended
Processor	600MHz Pentium or AMD Opteron, AMD Athlon64, AMD Athlon XP.	800MHz Pentium or AMD Opteron, AMD Athlon64, AMD Athlon XP.
RAM	128MB	256MB
HD Space	1GB - 800MB for .NET2, 200MB for Manager.	1.4GB - 800MB for .NET2, 600MB for the full IP Office Admin suite.
Display	800 x 600 - 256 Colors	1024 x 768 - 16-bit High Color
Operating System	Supported on Windows XP Pro, Windows Vista, Windows 7, Windows 2003 and Windows 2008. • 32-bit and 64-bit versions are supported. • Vista support is only on Business, Enterprise and Ultimate versions. • Windows 7 support is only on Professional, Enterprise and Ultimate versions.	

Installing the Essential Edition - PARTNER® Version Admin Tool (Manager)

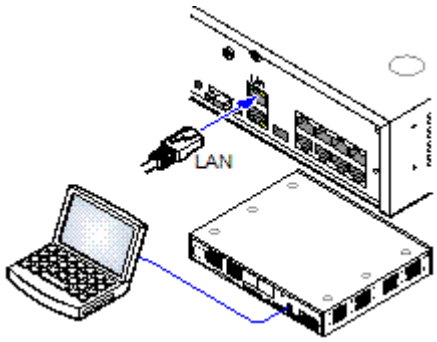
1. Using the Add or Remove Programs option in the Windows Control Panel, check that the PC does not already have a version of Manager installed.
   - If 'yes' and the suite is a pre-IP Office R3.2 version, remove the existing application via Add/Remove Programs.
   - If the existing suite is IP Office R3.2 or higher, it is possible to upgrade without removing the previous installation as the installation wizard overwrites the old version without conflict.
2. Insert the IP Office Administrator Applications DVD or log into a directory that contains the application install files. Select the Manager option.
3. Double-click setup.exe.
4. Select the language you want to use for the installation process. This does not affect the language used by Manager when running.

5. Click Next >.
6. Select Administrator as the person who should be able to run the Admin Suite.
7. Click Next >. If required select the destination to which the applications should be installed. We recommend that you accept the default destination.
8. Click Next >. The next screen is used to select which applications of the suite should be installed. Clicking on each will display a description of the application.
9. Click the ▼ icon beside Manager.
10. Click Next >.


IP Office Admin Suite - InstallShield Wizard
Custom Setup
Select the program features you want installed.
Click on an icon in the list below to change how a feature is installed.
System Monitor
Feature Key Server
Manager
Call Status
Feature Description
Provides a system view of all active calls.
This feature will be installed on local hard drive.
This feature, and all subfeatures, will be installed on local hard drive.
This feature will be installed when required.
This feature will not be available.
Change...
InstallShield
Help
< Back
Next >
Cancel

11. Click Install.
12. Installation of Windows .Net2 components may be required. If dialogs for this appear, follow the prompts to install .Net.
13. If requested, reboot the PC.

1.4 Preparing Manager



During installation it is recommended that the control unit is started without it being connected to any other unit. This ensures that the Essential Edition - PARTNER® Version defaults to a known set of IP address settings.

This section covers connecting your installation PC directly to the control unit.

Requirements

- IP Office Administration PC
  A Windows PC (Laptop) with the IP Office Administrator Application suite installed 12.
- LAN Cable
  IP Office 500v2 control units can use a standard RJ45-RJ45 LAN cable.

Direct Connection to a Defaulted IP Office 500v2 Control Unit

1. Connect the LAN cable from the PC LAN port to the LAN or LAN1 port on the control unit.
2. Check that the orange LED lamp at the control unit LAN port is on. The green LED may also be flickering as it indicates traffic across the LAN connection.
3. Your PC should automatically connect to the Essential Edition - PARTNER® Version
4. You can now start Manager.

5. The default address for an IP Office control unit LAN port is 192.168.42.1/255.255.255.0. If Manager does not detect the Essential Edition - PARTNER® Version control unit you may have to change the TCP/IP properties for the PC LAN port to the following:

Fixed IP address	192.168.42.203
Subnet mask	255.255.255.0
Default gateway	192.168.42.1.

- Although setting the PC to be a DHCP client could be used, this is not recommended for performing more advanced functions such as firmware upgrades.

To test the connection before running Manager or System Status Application:

a. Select Start | Run and enter cmd.

b. In the command window that appears enter
ping 192.168.42.1.
The results should show a number of ping replies from the Essential Edition - PARTNER® Version. This confirms basic communication between the Manager PC and the control unit.

c. If there are no ping replies enter
ipconfig.
The results should list the IP address settings of the Manager PC as required above.

d. issue the command
exit
and check the cable connection.

1.5 Starting Manager

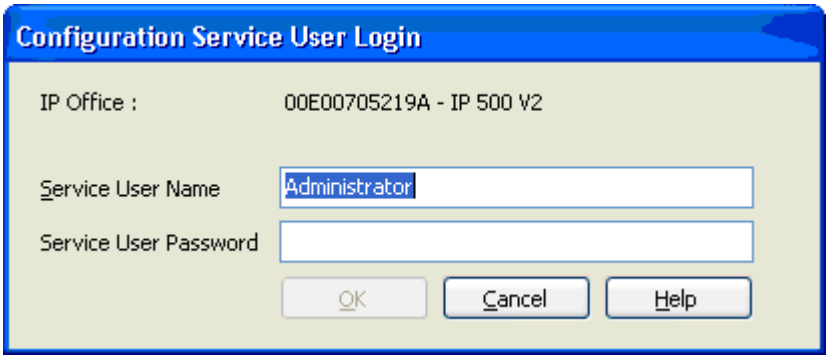
You can start the Manager application by double clicking the Manager icon in your desktop

Alternatively, start the application manually

1. Select Start | Programs | IP Office | Manager.
2. If the PC has firewall software installed, you may be prompted as to whether you want to allow this program to access the network. Select Yes or OK.
3. When the manager application starts it briefly displays the Avaya application splash screen and then presents the welcome screen.

Welcome Screen

The application continues its search and when it detects that it is connected to Essential Edition - PARTNER® Version (normally after 5 to 10 seconds) it displays the User log-in dialog which contains the name of the configuration file it has found and intends to use.

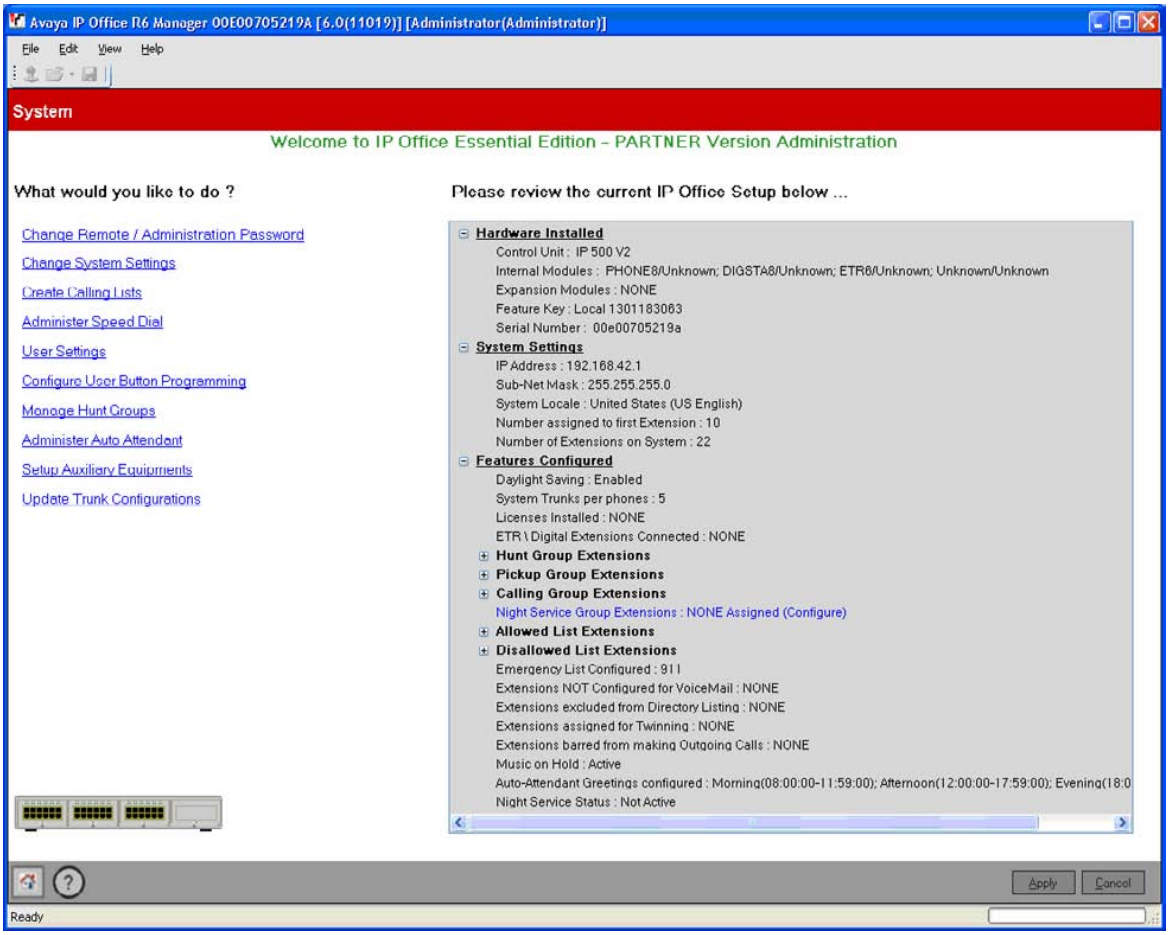


Default password is Administrator (case sensitive)

Note: If no configuration file is found the welcome screen remains displayed and the log-in dialog does not appear until a configuration task 100 is selected.

1.6 Home Page

After successful log-in the Manager Home screen is displayed. The window contains hot links to the common tasks most likely to be needed during Essential Edition - PARTNER® Version installation and standard set-up activities. See Administration Tasks 22


Avaya IP Office R6 Manager 00E00705219A [6.0(11019)] [Administrator(Administrator)]
File Edit View Help
System
Welcome to IP Office Essential Edition – PARTNER Version Administration
What would you like to do ?
Change Remote / Administration Password
Change System Settings
Create Calling Lists
Administer Speed Dial
User Settings
Configure User Button Programming
Manage Hunt Groups
Administer Auto Attendant
Setup Auxiliary Equipments
Update Trunk Configurations
Please review the current IP Office Setup below ...
Hardware Installed
Control Unit : IP 500 V2
Internal Modules : PHONE8/Unknown; DIGSTA8/Unknown; ETR6/Unknown; Unknown/Unknown
Expansion Modules : NONE
Feature Key : Local 1301183063
Serial Number : 00e00705219a
System Settings
IP Address : 192.168.42.1
Sub-Net Mask : 255.255.255.0
System Locale : United States (US English)
Number assigned to first Extension : 10
Number of Extensions on System : 22
Features Configured
Daylight Saving : Enabled
System Trunks per phones : 5
Licenses Installed : NONE
ETR \ Digital Extensions Connected : NONE
Hunt Group Extensions
Pickup Group Extensions
Calling Group Extensions
Night Service Group Extensions : NONE Assigned (Configure)
Allowed List Extensions
Disallowed List Extensions
Emergency List Configured : 911
Extensions NOT Configured for VoiceMail : NONE
Extensions excluded from Directory Listing : NONE
Extensions assigned for Twinning : NONE
Extensions barred from making Outgoing Calls : NONE
Music on Hold : Active
Auto-Attendant Greetings configured : Morning(08:00:00-11:59:00); Afternoon(12:00:00-17:59:00); Evening(18:0
Night Service Status : Not Active
Apply
Cancel
Ready

Apply button prompts you to save the configuration file that is currently in Manager memory by invoking the Send Configuration 86 command.

Cancel button displays a pop-up for confirmation before closing the configuration file currently in Manager memory.

1.7 How to use Manager

IMPORTANT

As you use Manager to make changes to the <%SHORTNAME%> setup, you are prompted to save or discard changes you have made, before leaving any administration window to go on to another task. However, you should remember that you are accumulating these changes in a COPY of the control unit configuration file which must be saved back to the SD card 8 before changes are effective. Similarly, system changes such as plugging in handsets or making system changes through TUI actions during this time are recognized by the <%SHORTNAME%> system control unit, but are undetected by Manager because it is working with a copy of the configuration file.

Avaya recommend that whilst using Manager you save 79 the configuration file and then restart Manager at frequent intervals, to ensure the control unit working copy and the Manager copy of the configuration file, remain as compatible as possible.

Avaya recommend that you read this document and make yourself thoroughly familiar with it and its contents. This table is provided for when you may need to 'jump' directly to a specific task that may not be obvious from the list of contents.

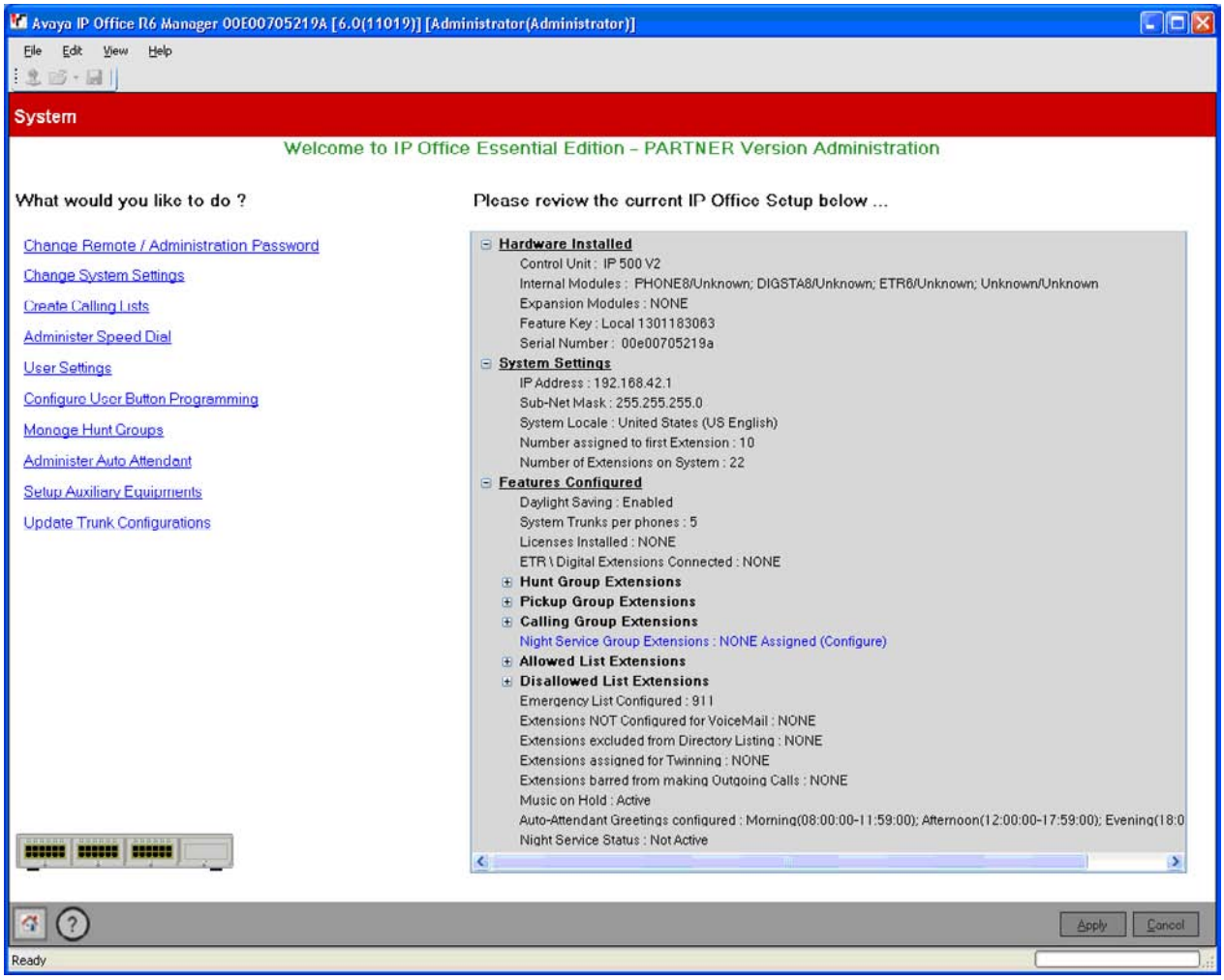
What I want to do	Associated Task
Area code Required	Advanced Parameters 70 (Toll Call Prefix)
Abbreviated Ringing (active by default)	Users – Advanced 67 Settings
Account code Entries(PARTNER 6 digit)	System – List Management 27, Users Advanced 67 Settings (restriction)
Allowed list management	System – List Management 27
Analog: Group Call Distribution	Trunks – Setup 48
Analog: Hold Disconnect Time	Trunks – Setup 48
Analog: Line Coverage Extension	Trunks – Setup 48
Analog: Ring Pattern	Trunks – Setup 48
Analog: Signaling Type (Always defaulted to DTMF dialing)	Trunks – Setup 48
Assigned extensions for Forced Account Codes	Users – Advanced 67 Settings
Automatic daylight saving	System Setup 26
Automatic VMS Cover	Users – Advanced 67 Settings
Backing up	Additional 72 Admin Tasks
Button Programming - Phone Picture	Users – Button 34 Programming
Call Coverage Duration	Users – Advanced 67 Settings
Call waiting extension (On by default)	Users – Advanced 67 Settings
Calling Group: Add / remove extensions	Group Management 27
Cannot be intruded / Privacy	Users – Advanced 67 Settings
Change a password	Remote/Admin password 24, System Setup 26
Channel Allocation, Unit	Trunks - T1/PRI 60
Clock Quality	Trunks - T1 - Advanced 59 Setup
Contact Closure	Auxiliary 45 Equipment
Copy and Print	User Setup - Button 34 Programming
CPU Operation	Trunks - T1/PRI 60
Daylight saving time	System Setup 26
Default Gateway	System Setup 26
Delay-Day/Night (Each Line)	Trunks – Advanced 59 Setup
Disallowed list membership	Users – List Assignment 28
Disallowed List: Assigned extensions/Telephone numbers	System – List Management 28
Distinctive ring	Users – Advanced 67 Settings

What I want to do	Associated Task
Door Phone	Auxiliary 45 Equipment
Emergency Numbers List	System - List Management 27, Create Calling Lists
Enable ALS	Users - Button 34 Programming
Ex Directory	User Setup 33
External hot line	Users – Advanced 67 Settings
Fax Machine Extension	Users – Advanced 67 Settings
Forced Account code Entry	Users – Advanced 67 Settings
Framing	Trunks - T1/PRI 60
Greetings	Auto 43 Attendant
Groups: Hunt, Pickup, Calling, Night Service	Hunt Group 42 Management
Haul Length	Trunks - T1/PRI 60
Hold reminder time	Advanced Parameters 70
Hunt Group: Add / remove extensions	Group Management 27
Intercom Dial Tone	Users – Advanced 67 Settings
Install Handset	Users - Button 34 Programming
Internal hotline alert extension	Users – Advanced 67 Settings
IP Address	System Setup 26 (Only Static IP Address)
IP Mask	System Setup 26
Language	User Setup 33
Licenses	System - License 66 Management
Line access restriction	Users – Advanced 67 Settings
Lines per phone	System Setup 26
Line Signaling	Trunks - T1/PRI 60
Lists	Group Management, Create Calling Lists 27
Locale	System Setup 26
Log All caller ID calls	Users – Advanced 67 Settings, System Setup 26
Loudspeaker paging Extension	Users – Advanced 67 Settings
"Mobility Setup" - Remote Call Forwarding (Covered under Twinning)	Users - Setup 33
Mobile Twinning	Users - Setup 33
Music on hold Status	Auxiliary 45 Equipment
Name	User Setup 33
Network time synchronization	Advanced Parameters 70
Night Service Group: Add / remove extensions	Group Management 27
Number of lines	System Setup 26
Outgoing call restrictions	User Setup 33, Users – Advanced 67 Settings - Button programming, system feature
Outside conferencing denial	Advanced Parameters 70
Override Line Ringing	Users – Advanced 67 Settings, User Setup
Passwords	Admin 24/Remote, System Setup 26
Pickup Group: Add / remove extensions	Group Management 27

What I want to do	Associated Task
PRI: Setup	Trunks – Setup 48
Provider	Trunks - PRI 51
Recall Timer duration (Flash Pulse Width for Analog lines and Flash Hook Generation timer for T1 lines)	Trunk 48
Ring on transfer	Advanced Parameters 70
Ring Pattern	Users – Advanced 67 Settings, Trunks – Setup 48
Schedule (Each Line)	Trunks – Advanced 59 Setup
SIP: Line type config	Trunks – Setup 48
SMDR (reports)	Auxiliary 45 Equipment
SMTP	Advanced Parameters 70
Star Code delay	Advanced Parameters 70
Switch Type	Trunks - PRI 51
System dial out password	System – System Setup 26
System Mode,	Common Area (Can be changed from File 92 Menu)
System Name	System Setup 26
System Speed Dial Numbers	System – Speed 31 Dial Setup
System Version	Common Area 23
T1 Channel Allocation table	Trunks – Setup 48
Time Synchronize	Advanced Parameters 70
Transfer Return Ring (Default =4 rings)	Advanced Parameters 70
Transport Protocol	Trunks - SIP 62
Trunks Configuration	Trunks 48
Twinning	User 33 Setup
User: assign to group	User 33 Setup
User: configure	User 33 Setup
VMS Cover Duration	Users – Advanced 67 Settings
Voicemail	User 33 Setup, Advanced Parameters 70
Zero suppression	Trunks - T1/PRI 60

Chapter 2.
Administration Tasks

2. Administration Tasks


Avaya IP Office R6 Manager 00E00705219A [6.0(11019)] [Administrator(Administrator)]
File Edit View Help
System
Welcome to IP Office Essential Edition – PARTNER Version Administration
What would you like to do ?
Change Remote / Administration Password
Change System Settings
Create Calling Lists
Administer Speed Dial
User Settings
Configure User Button Programming
Manage Hunt Groups
Administer Auto Attendant
Setup Auxiliary Equipments
Update Trunk Configurations
Please review the current IP Office Setup below ...
Hardware Installed
Control Unit : IP 500 V2
Internal Modules : PHONE8/Unknown; DIGSTA8/Unknown; ETR6/Unknown; Unknown/Unknown
Expansion Modules : NONE
Feature Key : Local 1301183063
Serial Number : 00e00705219a
System Settings
IP Address : 192.168.42.1
Sub-Net Mask : 255.255.255.0
System Locale : United States (US English)
Number assigned to first Extension : 10
Number of Extensions on System : 22
Features Configured
Daylight Saving : Enabled
System Trunks per phones : 5
Licenses Installed : NONE
ETR \ Digital Extensions Connected : NONE
Hunt Group Extensions
Pickup Group Extensions
Calling Group Extensions
Night Service Group Extensions : NONE Assigned (Configure)
Allowed List Extensions
Disallowed List Extensions
Emergency List Configured : 911
Extensions NOT Configured for VoiceMail : NONE
Extensions excluded from Directory Listing : NONE
Extensions assigned for Twinning : NONE
Extensions barred from making Outgoing Calls : NONE
Music on Hold : Active
Auto-Attendant Greetings configured : Morning(08:00:00-11:59:00); Afternoon(12:00:00-17:59:00); Evening(18:0
Night Service Status : Not Active
Apply
Cancel
Ready

The Avaya SD card [8] software contains a default system setup and gathers information on control unit items. Manager home page displays this system information in the common area at the right hand side of the screen as IP Office Setup. Any settings that are not yet specified are shown in blue.

A graphic representation of the hardware shows used slots and type of card fitted in them.

Hot Links (What would you like to do)

Change Remote/Administration Password [24] - enables you to set [24] or change a system (control unit) access password.

Change System Settings [26] - used to alter system parameters such as hardware identities and system password [24].

Create Calling Lists [27] - provides convenient tables to assign users permissions.

Administer Speed Dial [31] - enables you to allocate speed dial codes.

User Settings [33] - used to manage user configuration and user membership.

Configure User Button Programming [34] - allows configuration of button functions for each different type of extension handset.

Manage Hunt Groups [42] - assigns extensions to groups.

Administer Auto Attendant [43] - used to set up system responses (automatic greetings) and routing of out-of-hours calls.

Setup Auxiliary Equipment [45] - administers external items that interface the telephone system such as door locks/ phones (admission control)

Update Trunk Configuration [48] - administers trunk connections, installation settings.

2.1 Using Administration Windows

- Two Icons at bottom left of the window enable you to return to the *Home Page* or display *Help*
- Many fields display a drop down menu of options for that field, displayed by a right click when the mouse pointer is placed in the field.
- After editing the setting in an *Admin* window, click Apply to save the changes or click Cancel to abandon the changes. If you attempt to move away, you are prompted whether you want to save the changes.
  When you are setting up Trunk Channels, a Back option returns you to the previous dialog so that you can select another trunk line.
- A * next to settings indicates that it is the default value.
- If the value entered is incorrect in some way, a warning or alarm icon may be displayed next to it. If you place your cursor over the icon
  - Error
    This icon indicates that the current value of a setting is not supported or conflicts with another and is a likely to cause incorrect operation of the system.
  - Warning
    This icon indicates that the current value of a setting is not typical and may indicate faulty configuration.
  - Information
    This icon indicates some special information about a setting.

By default, tool tips are displayed whenever the mouse pointer hovers over a dynamic control feature. These tips can be switched OFF by activating or de activating Tool Tips in the View menu options.

The status bar at the bottom of the screen can display system messages or instructions.

IMPORTANT
As you use Manager to make changes to the <%SHORTNAME%> setup, you are prompted to save or discard changes you have made, before leaving any administration window to go on to another task. However, you should remember that you are accumulating these changes in a COPY of the control unit configuration file which must be saved back to the SD card 8 before changes are effective. Similarly, system changes such as plugging in handsets or making system changes through TUI actions during this time are recognized by the <%SHORTNAME%> system control unit, but are undetected by Manager because it is working with a copy of the configuration file.

Avaya recommend that whilst using Manager you save 79 the configuration file and then restart Manager at frequent intervals, to ensure the control unit working copy and the Manager copy of the configuration file, remain as compatible as possible.

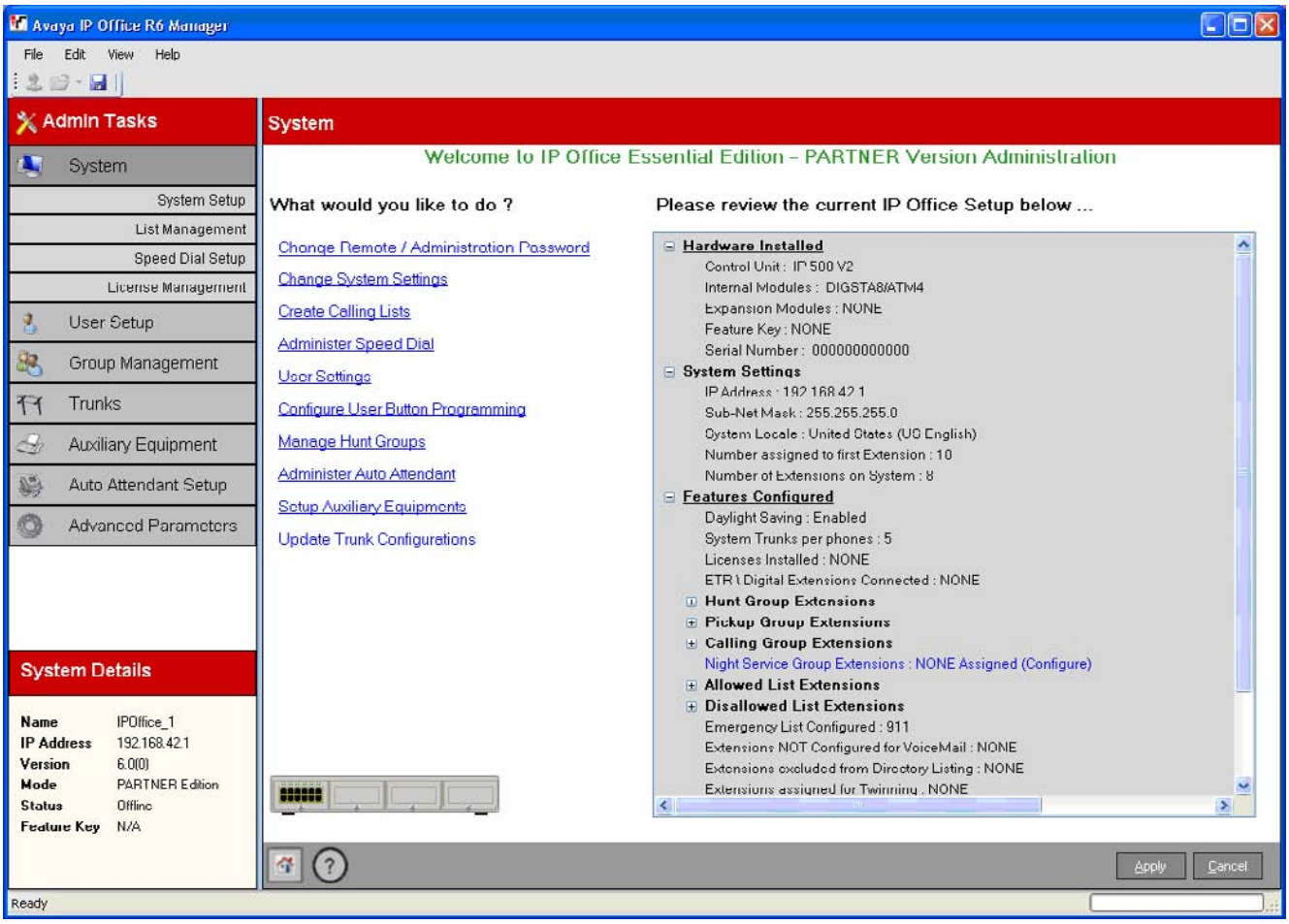
Do not leave the Manager application open for long periods and particularly when it is not being used.

2.2 Admin Tasks Display

When a Essential Edition - PARTNER® Version configuration is loaded into Manager, the dialogs and options provided by Manager switch to the Administration (Home Page) window shown in the previous 15 section.

There is an alternative administration window which can be used. This other window has two extra panes:

1. Admin Tasks - This is a more formal presentation of tasks. It has a slightly different task listing and enables you to access all tasks.
2. System Details - Provides basic information on the Essential Edition - PARTNER® Version Partner Version to which you are connected. This is static information that cannot be edited.



You may toggle between the two administration windows by Activating or deactivating menu option View | Hide Admin Tasks

Administration tasks that can only be accessed from the *Admin Tasks* pane are detailed in the *Additional Administration Tasks* 66 section.

2.3 Remote/Admin Password

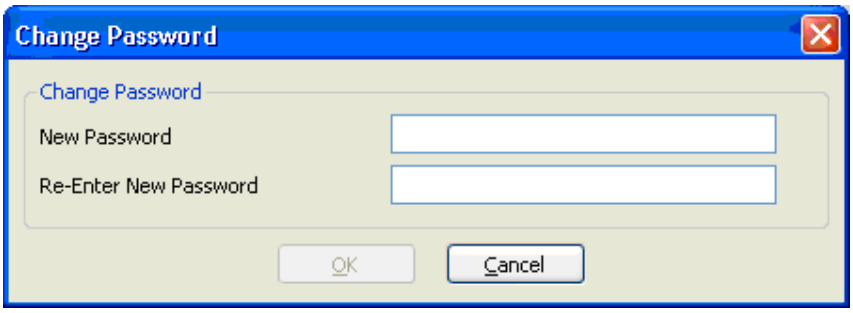
WARNING - Password Change Required
New Essential Edition - PARTNER® Version systems use default security settings. As a minimum, you should change the default Remote/Administrator Password. Failure to do so will render the system potentially insecure.

This option enables you to change the Essential Edition - PARTNER® Version control unit access password. This password must be used whether you are using manager locally or remotely.

The password controls remote or local access to the system to make administrative changes to the overall set-up, such as changes to the configuration or equipment. The administration password can only be changed by an administrator.

1. From the Manager home 15 page, click Change Remote / Administrator Password,

2. The Change Password dialog is displayed.



3. Make any required changes and click OK.

Remember you are changing the password for accessing the Essential Edition - PARTNER® Version system to which you are attached, not the manager application.

Please Note:

System Password

The Avaya telephone system also uses a System password. This password is a four digit password that must be entered at an extension to set or make changes to local settings such as call barring, night service and other dialling restrictions

Change System Password using Manager

1. From Manager home page, Click the hot link "Change System Settings"

2. In the *System Parameters* box, change system password (Field accepts four chosen digits only)

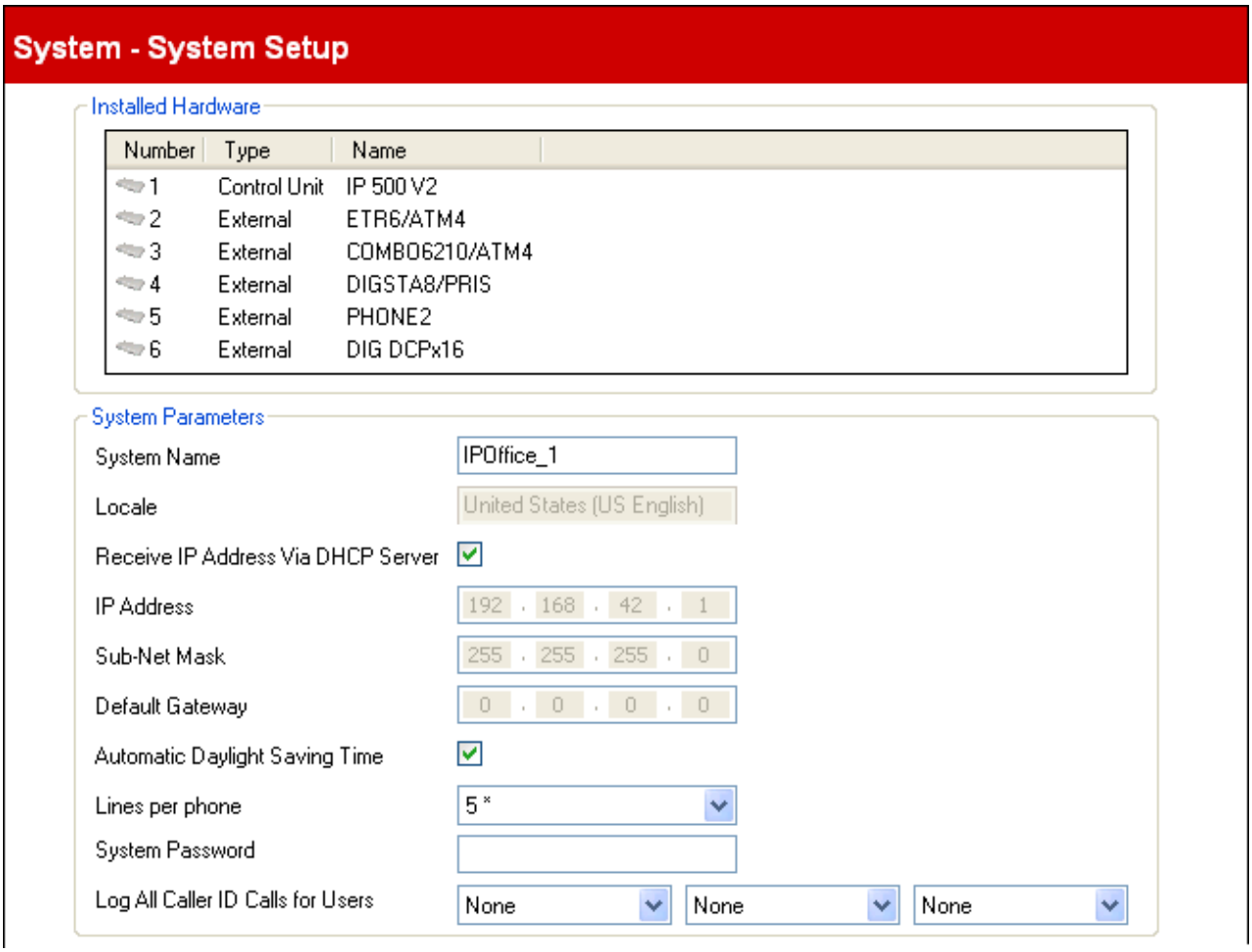
Change System Password by using a telephone handset

1. Dial #403

2. Dial four chosen digits to set the system password.

2.4 System Settings

This window displays a summary of the hardware components installed in the phone system. It also enables configuration of system-specific settings.

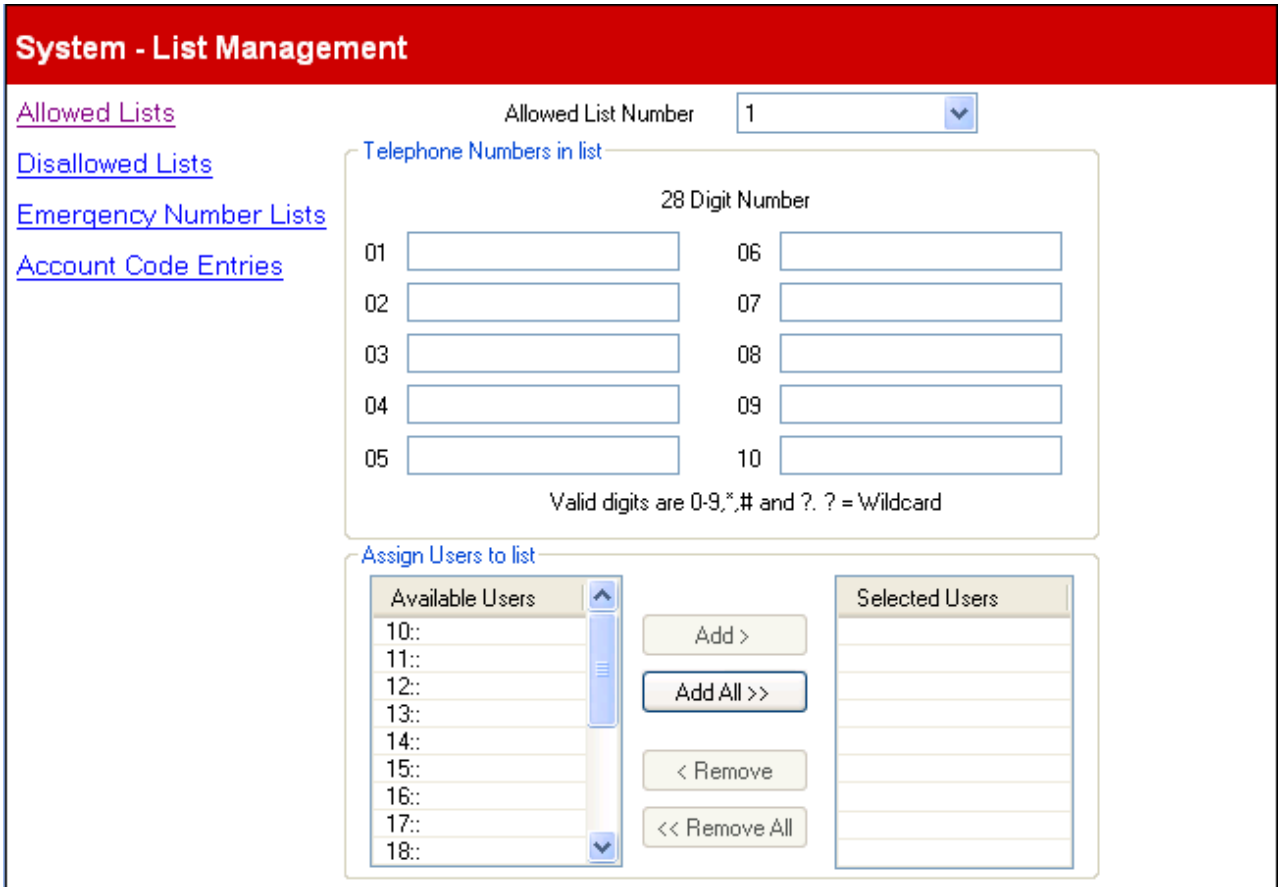


- Installed Hardware
  This section displays a list of the hardware components (control unit and its base cards) for trunks and extensions installed in the telephone system. These values are for information only and cannot be edited.
- System Parameters
  This section is used to configure the following system settings.
  - System Name
    A name to identify this system. This is typically used to identify the configuration by the location or customer's company name. Some features require the system to have a name. This field is case sensitive. Do not use punctuation characters such as #, ?, /, -,. and ,.
  - Locale: *Default = United States (US English)*
    This option is fixed and cannot be changed.
  - Receive IP Address Via DHCP Server: *Default = On*
    When selected, the telephone system acts as a DHCP client and will obtain its IP address details by making DHCP requests when started. If not selected, the telephone system uses the IP address set in the fields below.
    - IP Address: *Default = 192.168.42.1*
      Enter the IP address that the telephone system should use if Receive IP Address Via DHCP Server is not selected.
    - Sub-Net Mask: *Default = 255.255.255.0*
      Enter the Sub-Net Mask that the telephone system should use if Receive IP Address Via DHCP Server is not selected.
    - Default Gateway: *Default = 0.0.0.0*
      Enter the Default Gateway that the telephone system should use if Receive IP Address Via DHCP Server is not selected.
  - Automatic Daylight Saving Time: *Default = On*
    When selected, the telephone system will automatically apply daylight saving time adjustments to its internal clock.

- Lines per phone: *Default = 5*
  This is the number of physical analog line ports. For phones with programmable buttons, those buttons can be configured as line appearance buttons, each matching a particular incoming line. This setting controls how many of each users buttons are automatically allocated as line appearance buttons. Note: that if this value is increased, the existing functions on some user buttons may be overwritten. If value is decreased, the lines are removed and replaced with blank programmable buttons.
- System Password: *Default = Blank (No system password), Range = 4 digits.*
  This is a four digit code used at first instance on a telephone handset by administrators (extension 10 & 11). Once set, the system password can be used to override station lock, forced account or disallowed calls list or night service outward restrictions to make a call. The system password is also requested when a user switches the phone system into or out of night service mode.
- Log All Caller ID Calls for Users: *Default = None selected.*
  Log information for the last 400 answered and unanswered calls on the system can be accessed by up to 3 extension users. These fields are used to select those users. Only calls that include caller ID are included. The extensions must be ETR (18D, 34D) or 1400 Series (1408, 1416) phone extensions and the extension user must have a programmable button set to Call Log in order to access the call log. The ! character on the phone display indicates that there are unviewed call details in the call log.

2.5 Calling Lists

Allows you to configure the various telephone number lists used by the telephone system and to indicate to which extension users, each list is applied. You can also indicate which lists a user belongs to through the User Setup 33 dialog.



Use the Add or Remove keys to move users to and from the *Selected Users* list after highlighting the item you want to move.

The different types of list are:

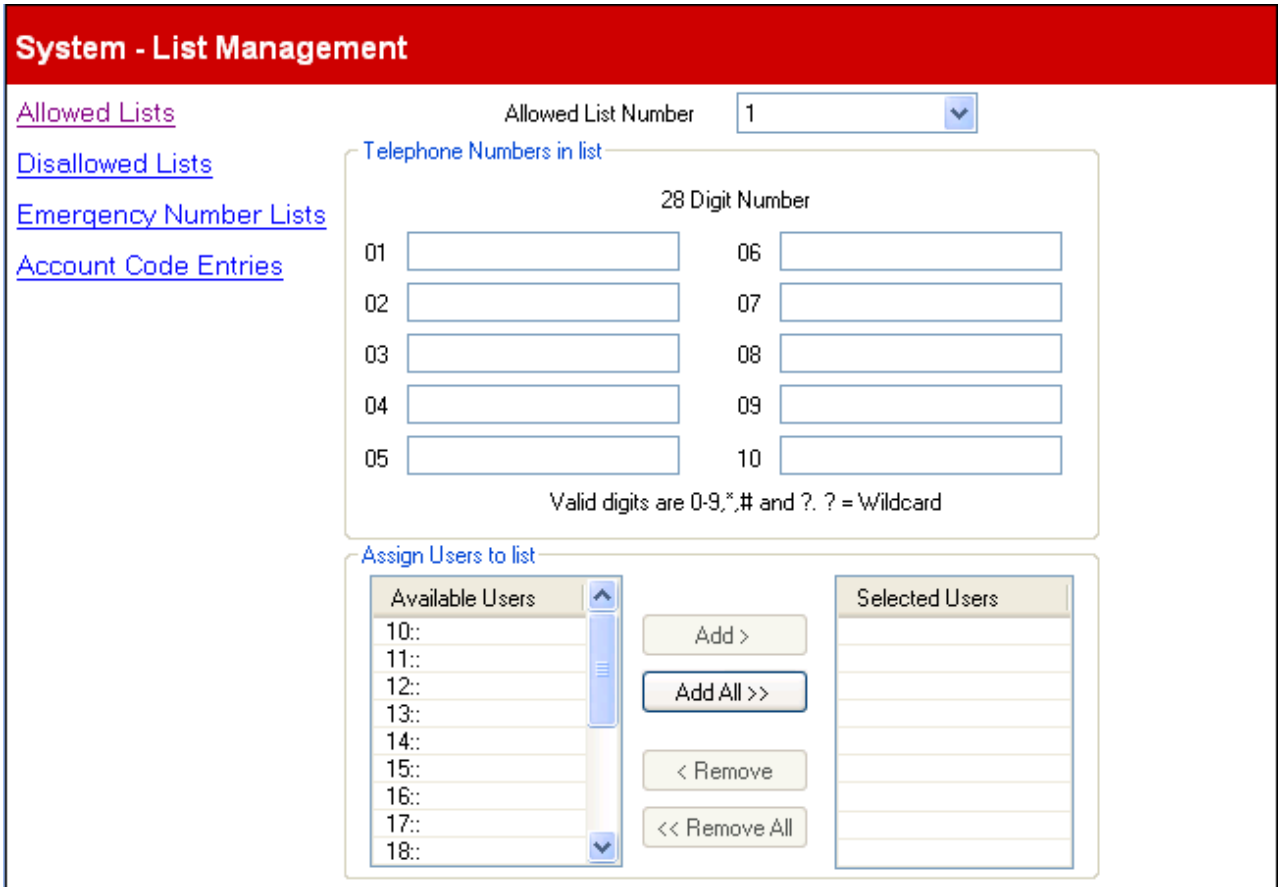
List Type	Description
Allowed Lists 28	Each allowed list contains external telephone numbers that member of the list are allowed to dial regardless of any other call barring. The user's allowed lists override any disallowed lists of which they are a member and the user's Outgoing Call Bar 33 and Outgoing Call Restrictions 67 settings. There are 8 lists, each containing up to 10 numbers. Each number can use the telephone dialing digits 0 to 9, *, # and can be up to 28 digits long. You can also use the ? character as a single digit wildcard.

Disallowed Lists 28	Each disallowed list contains external telephone numbers that users who are members of the list are not allowed to dial. Numbers in the disallowed lists of which a user is a member are overridden if they also appear in the allowed numbers lists, emergency number list of which the user is a member and also by marked system speed dials 31. There are 8 lists, each containing up to 10 numbers. Each number can use the telephone dialing digits 0 to 9, *, # and can be up to 28 digits long. You can also use the ? character as a single digit wildcard.
Emergency Number List 29	You can enter 10 emergency phone numbers into this list. This list is applied to all users and overrides any dialing restrictions that may also be applied to the users.
Account Code Entries 30	Extensions can be configured to require entry of a valid account code when they make an outgoing external call. The Account Code Entries list contains the account codes that are accepted as being valid and the selected users who are required to enter one of these codes.

2.5.1 Allowed Lists

Each allowed list contains external telephone numbers that member of the list are allowed to dial regardless of any other call barring. The user's allowed lists override any disallowed lists of which they are a member and the user's Outgoing Call Bar 33 and Outgoing Call Restrictions 67 settings.

There are 8 lists, each containing up to 10 numbers. Each number can use the telephone dialing digits 0 to 9, *, # and can be up to 28 digits long. You can also use the ? character as a single digit wildcard.

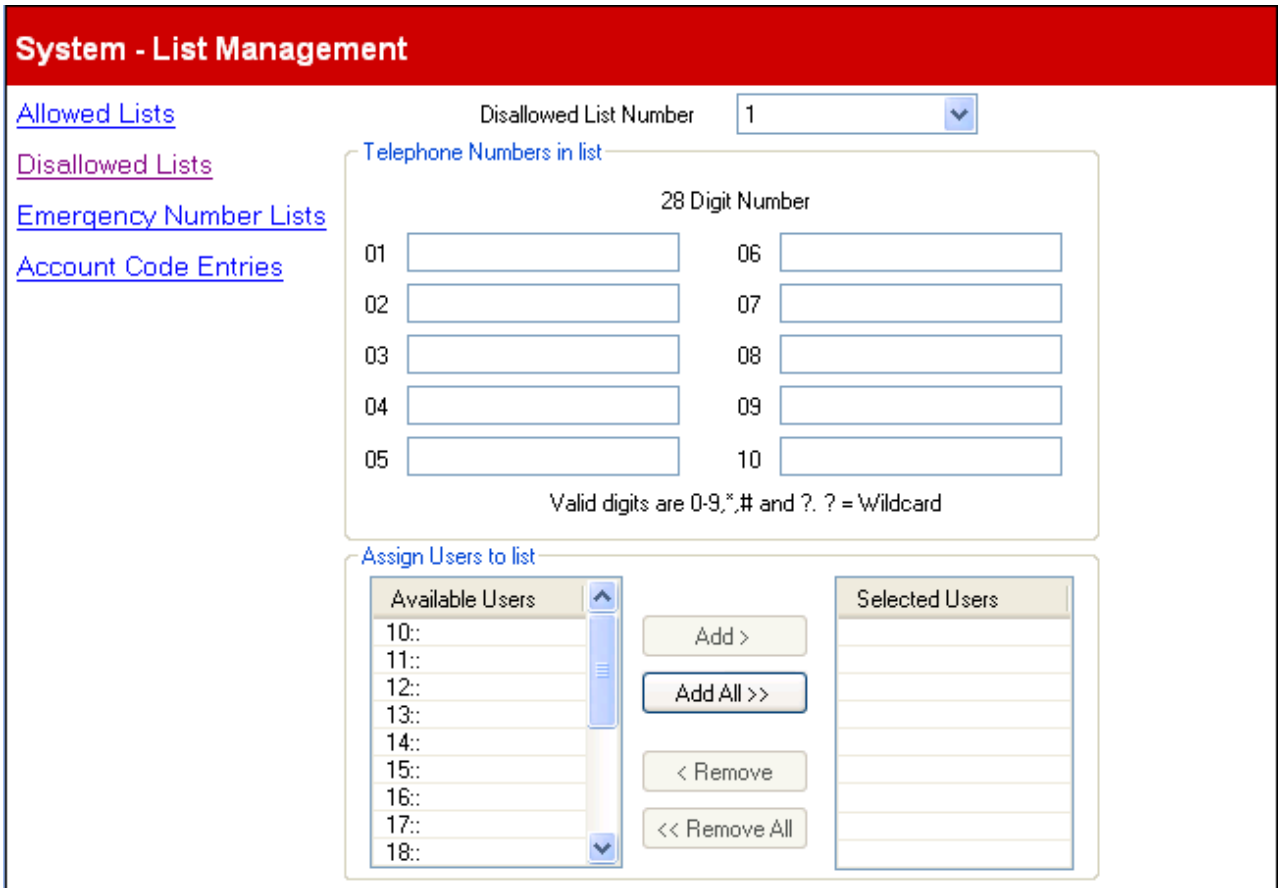


2.5.2 Disallowed Lists

Each disallowed list contains external telephone numbers that users who are members of the list are not allowed to dial.

Numbers in the disallowed lists of which a user is a member are overridden if they also appear in the allowed numbers lists, emergency number list of which the user is a member and also by marked system speed dials 31.

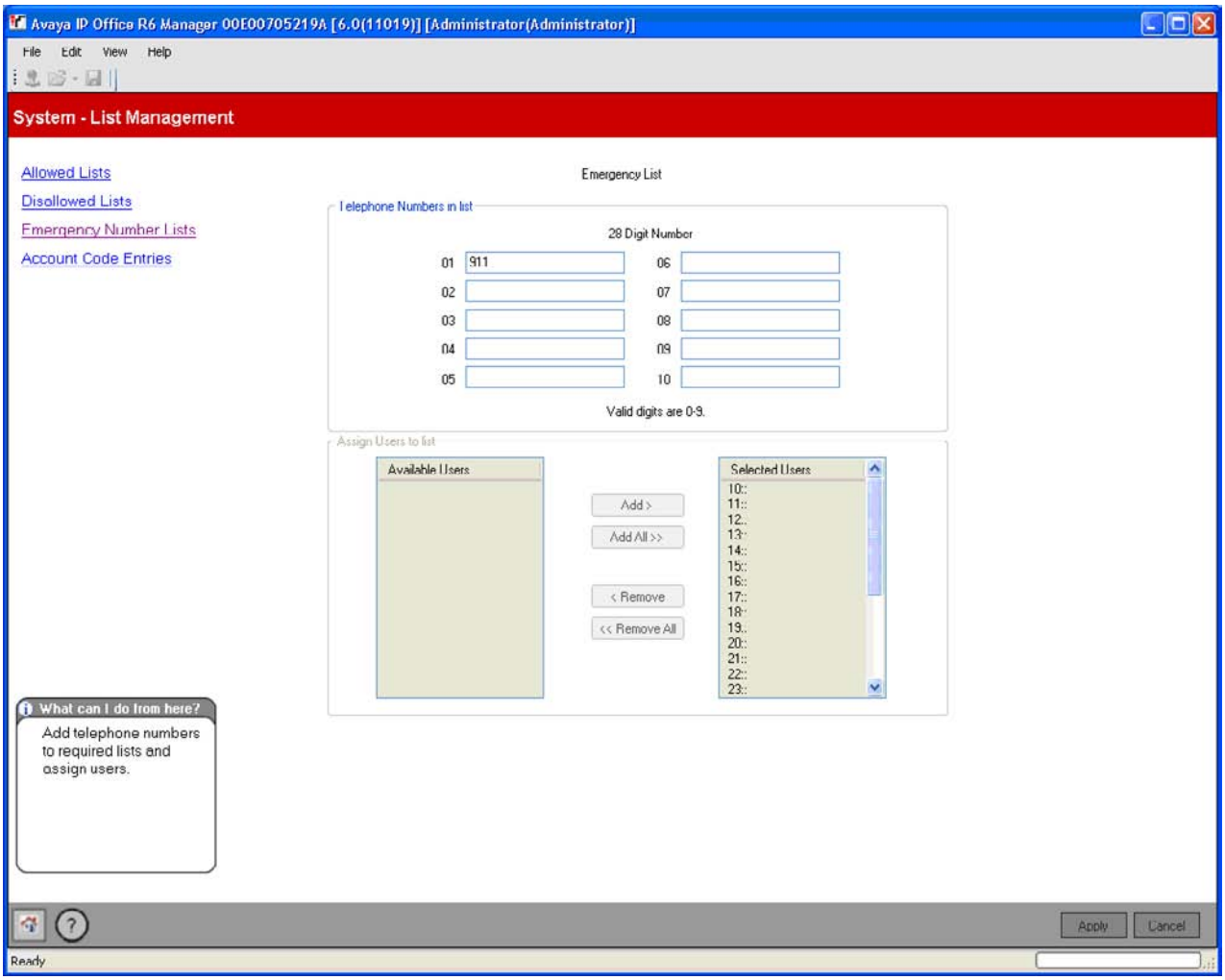
There are 8 lists, each containing up to 10 numbers. Each number can use the telephone dialing digits 0 to 9, *, # and can be up to 28 digits long. You can also use the ? character as a single digit wildcard.



2.5.3 Emergency Number List

You can enter 10 emergency phone numbers into this list. This list is applied to all users and overrides any dialing restrictions that may also be applied to the users.

By default 911 is already added to the emergency list and cannot be removed.



2.5.4 Account Code Entries

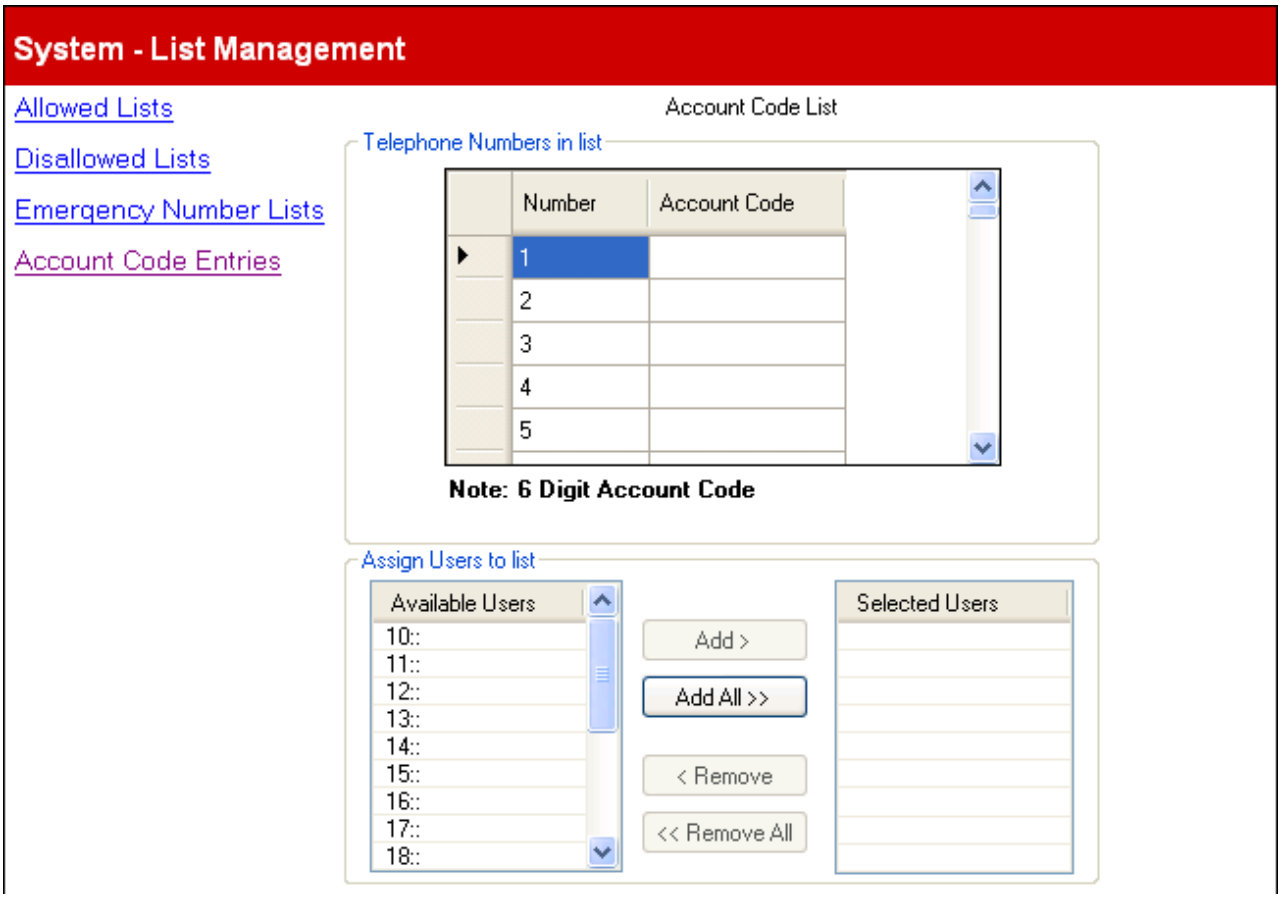
Account codes are commonly used to control cost allocation and out-going call restriction. The account code used on a call is included in the call information output by the system call log. Incoming calls can also trigger account codes automatically by matching the Caller ID stored with the account code.

Once a call has been completed using an account code, the account code information is removed from the user's call information. This means that redial functions will not re-enter the account code.

The maximum recommended number of accounts codes is 1000.

Extensions can be configured to require entry of a valid account code when they make an outgoing external call. The Account Code Entries list contains the account codes that are accepted as being valid and the selected users who are required to enter one of these codes.

Using the Assign Users to List dialog to add or remove users from the Selected User list will enable/disable the Forced Account Code Entry 67 (Restrictions) setting for the appropriate users. The selected users are then required to check that restriction settings in User Advanced 67 Settings are still valid and change the settings if required..

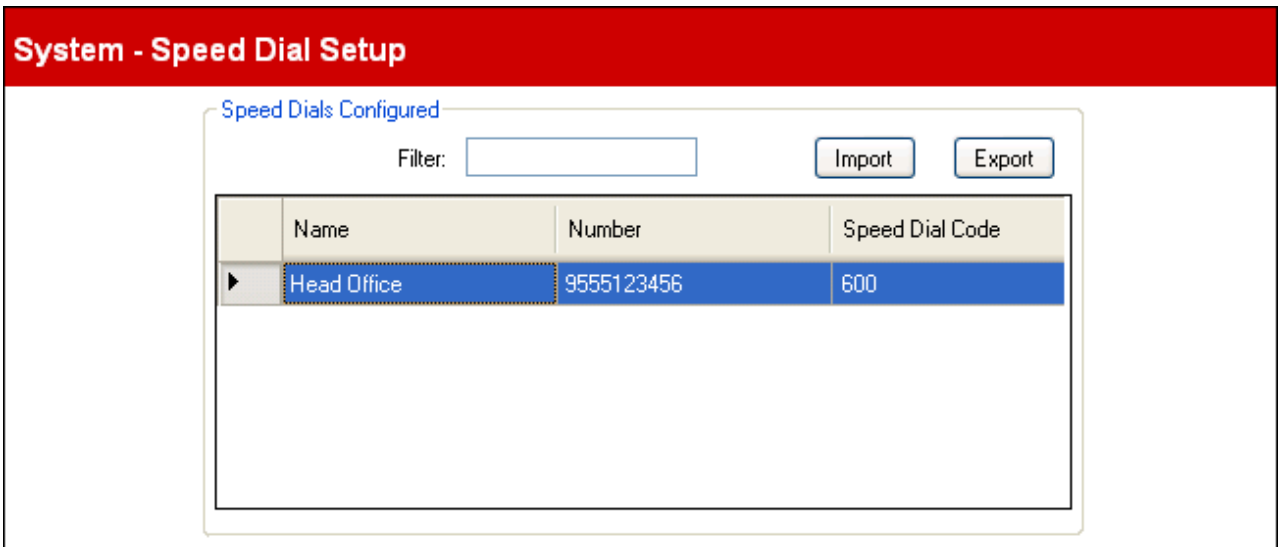


Note that this list is only used for validation of the account code used by the users set to forced account code entry on outgoing external calls. Voluntary (which are verified account codes) account codes entered by users when they make or receive calls, are not validated by the phone system.

In both cases, voluntary and forced account code entry, the account code used will be included in the SMDR output 46 for the call. Up to 99 code entries can be made.

2.6 Speed Dial Setup

This dialog allows you to configure names and numbers that can be accessed by dialing the associated speed dial code.



- Filter
  This option allows you to show only speed dial entries where the name, number or speed dial code matches the filter value entered. If there are no matches the whole set of speed dial entries is displayed.

- Import
  Allows you to import a CSV text file of speed dials. Each line of the file should contain a name, number and speed dial code, each separated by a comma. If an entry being imported matches an existing name it will overwrite the existing entry. If an entry being imported matches an existing speed dial code, it will be assigned an unused speed dial code.
- Export
  This control allows you to export a CSV text file of speed dials. You can then edit the file using a text editor.
  - Comma Separated Variable text Files (.csv)

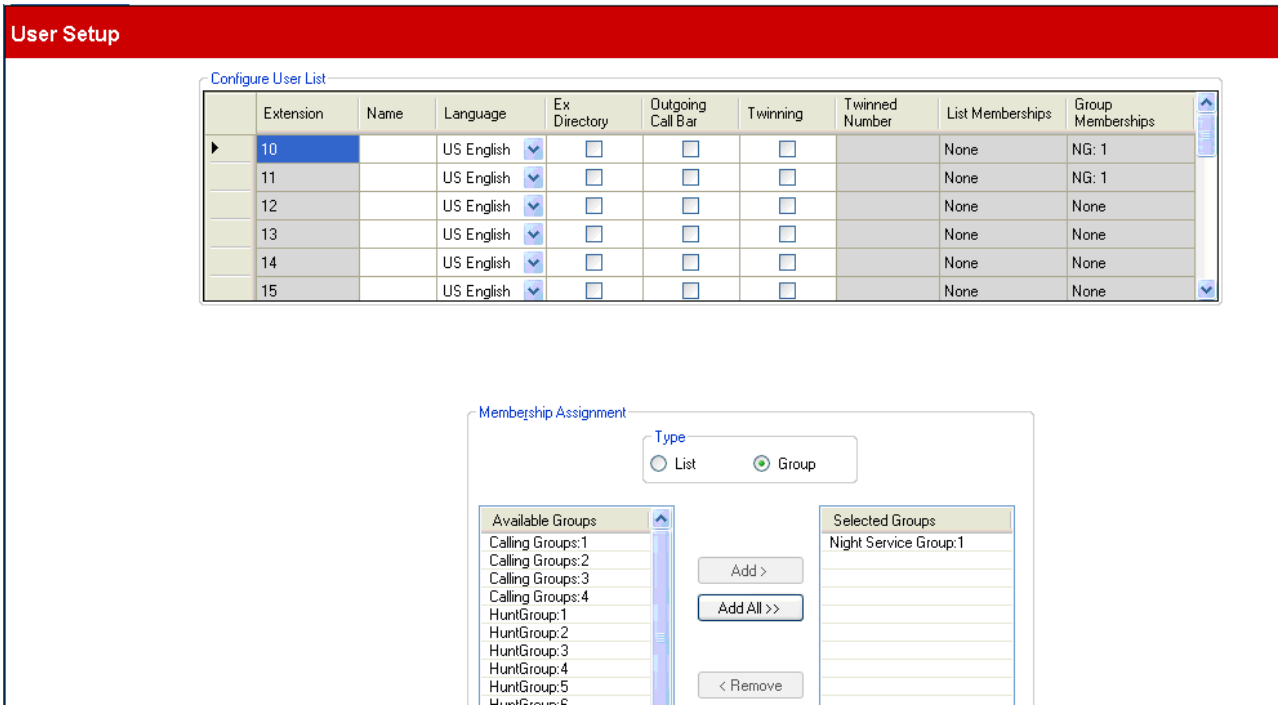
    These are plain text files. In addition to being exported from Manager these files can be created and edited using programs such as WordPad or Excel. Manager imports and exports CSV files using UTF-8 character encoding which uses a double byte to support characters with diacritic marks such as ä. Other applications, such as Excel, may, depending on the user PC settings, use different encoding which will cause such characters to be removed or corrupted. Care should be taken to ensure that any tool used to create or edit the CSV supports all the characters expected and uses UTF-8 format.

    Importing into Manager from Excel
    From Excel save the file as a .csv. This file will use ANSI character encoding. Open the file in Notepad and use the Save As option to rename the file and select UTF-8 encoding. Import the UTF-8 version of the file into Manager.

    Exporting from Manager into Excel
    Do not double-click on the file exported from Manager. Start Excel and use File | Open to select the file. Excel will recognize that the file uses UTF-8 encoding and start its text file importation wizard. Follow the wizard instructions and select comma as the field delimiter.
- Speed Dial Entries
  For each speed dial entry in the dialog, the following values are used:
  - Name
    This is the name that will be associated with the speed dial.
  - Number
    This is the external number that will be dialed by the telephone system when the speed dial code is dialed by an extension user.
    - Speed dials beginning with * are called 'marked speed dials' and are treated differently. A user can use a marked speed dial even if the number is in a disallowed list of which the user is a member. Marked speed dials can also used when an extension is locked. When dialed the * is not included. If a * is required to be dialed, the speed dial should be start with **.
  - Speed Dial Code
    Select a number between 600 and 699. Each number can only appear once in the list. This is the short form substitute number for often-used long numbers.

2.7 User Settings

This dialog allows the basic configuration of the extension users. It also enables you to set to which groups and lists the selected user belongs (that can also be done through the List Management 27 and Group Management 42 dialogs).



- Configure User List
  This list shows the current settings of all the extension users. The list is scrollable and sortable. The current group and list settings are show in the list and for the currently selected user can be edited in the Membership Assignment table below the list.
  - Extension: *Information field, not editable.*
    This is the extension number of the user.
  - Name: *Default = Blank (Display Extn<extension number>)*
    Use this field to enter the extension user's full name. The recommended format is <first name><space><last name>. When set, the Name is used for display by phones and within these dialogs. Only alphanumeric characters and spaces are supported in this field. Do not use punctuation characters such as #, ?, /, -, _ , ^, > and ,. The entry in this field should not start with a space or number.

    ⚠ WARNING: Changing Names. Mailboxes are created based on each user's unique name within the Essential Edition - PARTNER® Version configuration. Changing a user name will associate that user with a new mailbox. If it is necessary to change a user name, ensure that they have played and deleted all their messages first. If a user name is changed without clearing the original mailbox, it will be necessary to create a short code based on the old user name in order to access the old mailbox.
  - Language: *Default = US English*
    The language entered here will affect the language of prompts displayed on the user's extension and the prompts played to the user when they access their voicemail mailbox. The available options are *US English, Canadian French* or *Latin Spanish*.
  - Ex Directory: *Default = Off*
    If selected, the user is not included in the directory of users displayed on phones.
  - Outgoing Call Bar: *Default = Off*
    If selected, the extension user cannot make any outgoing external calls except to numbers in the Emergency Number List 29 and numbers in any Allowed Lists 28 of which they are a member.
  - Twinning: *Default = Off*
    If a user extension is twinned, calls to the extension also ring at the twinned number entered in Twinned Number field. Twinning is a licensed feature and this option can only be enabled for the number of users for which the phone system is licensed. If the license cover is exceeded, an error message is displayed. Remote Call Forwarding with simultaneous internal alert (mobile twinning in IP Office terminology) allows a user to send internal and external calls destined for a particular extension to an external phone. In addition, the call rings at internal extension(s) and receives the extension's coverage (including Voicemail) treatment when the call has not been answered. This feature is only available on systems that have external trunks with answer supervision.
  - Twinned Number: Default = Blank
    This is the number used for twinning if selected above.

- List Memberships: *Information field, not editable.*
  This field shows a summary of the Allowed Lists 28 (AL) and Disallowed Lists 28 (DL) to which the user belongs. If the user is selected, these can be edited in the Membership Assignment table below.
- Group Memberships: *Information field, not editable.*
  This field shows a summary of the hunt groups, pickup groups and calling groups to which the user belongs. If the user is selected, these can be edited in the Membership Assignment table below.

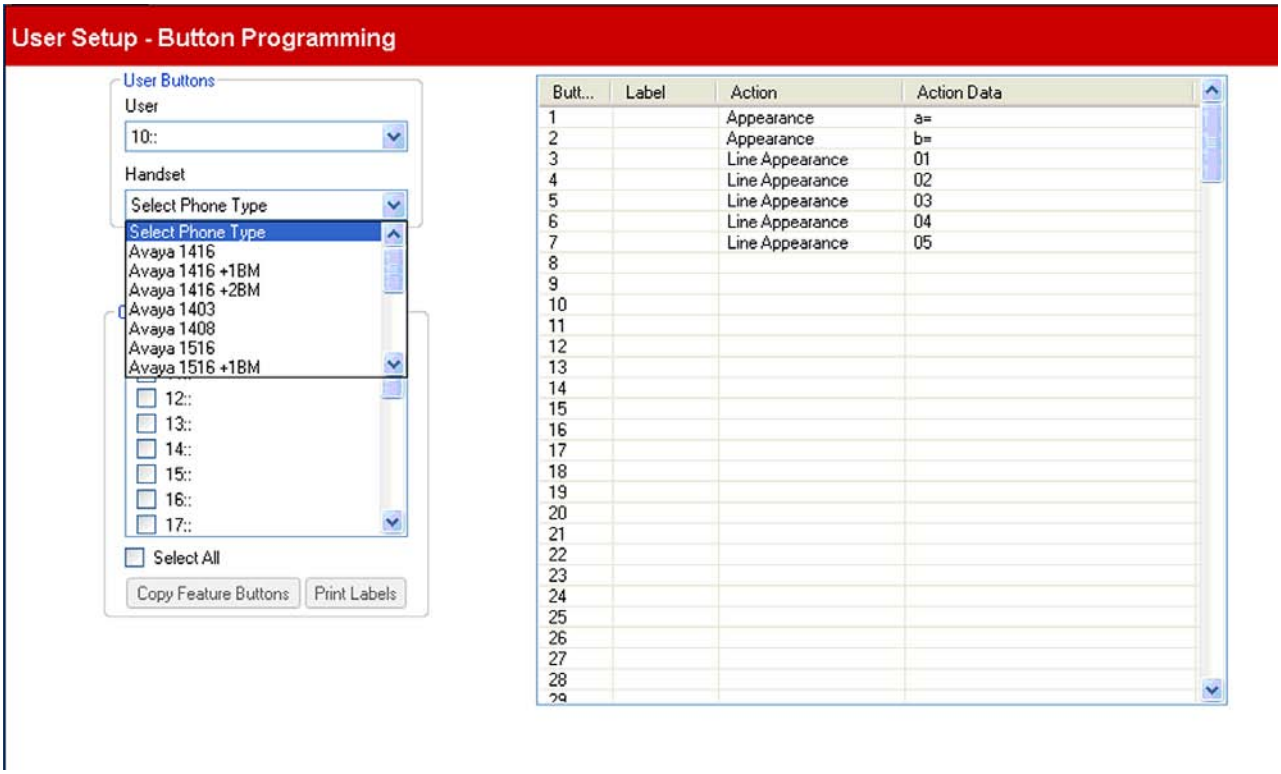
- Membership Assignment
  This section allows the list and groups memberships of the currently selected user to be edited. The *Type* option is used to select either List or Group memberships.
  - List 27
    If List is selected, the list of lists that exist and the lists of which the user is a member are displayed.
  - Group 42
    If Group is selected, the list of groups that exist and the groups of which the user is a member are displayed.

2.8 Button Programming

Many of the phones that can be attached to the telephone system have buttons, the function of which can be programmed through this dialog.

Button programming enables you to:

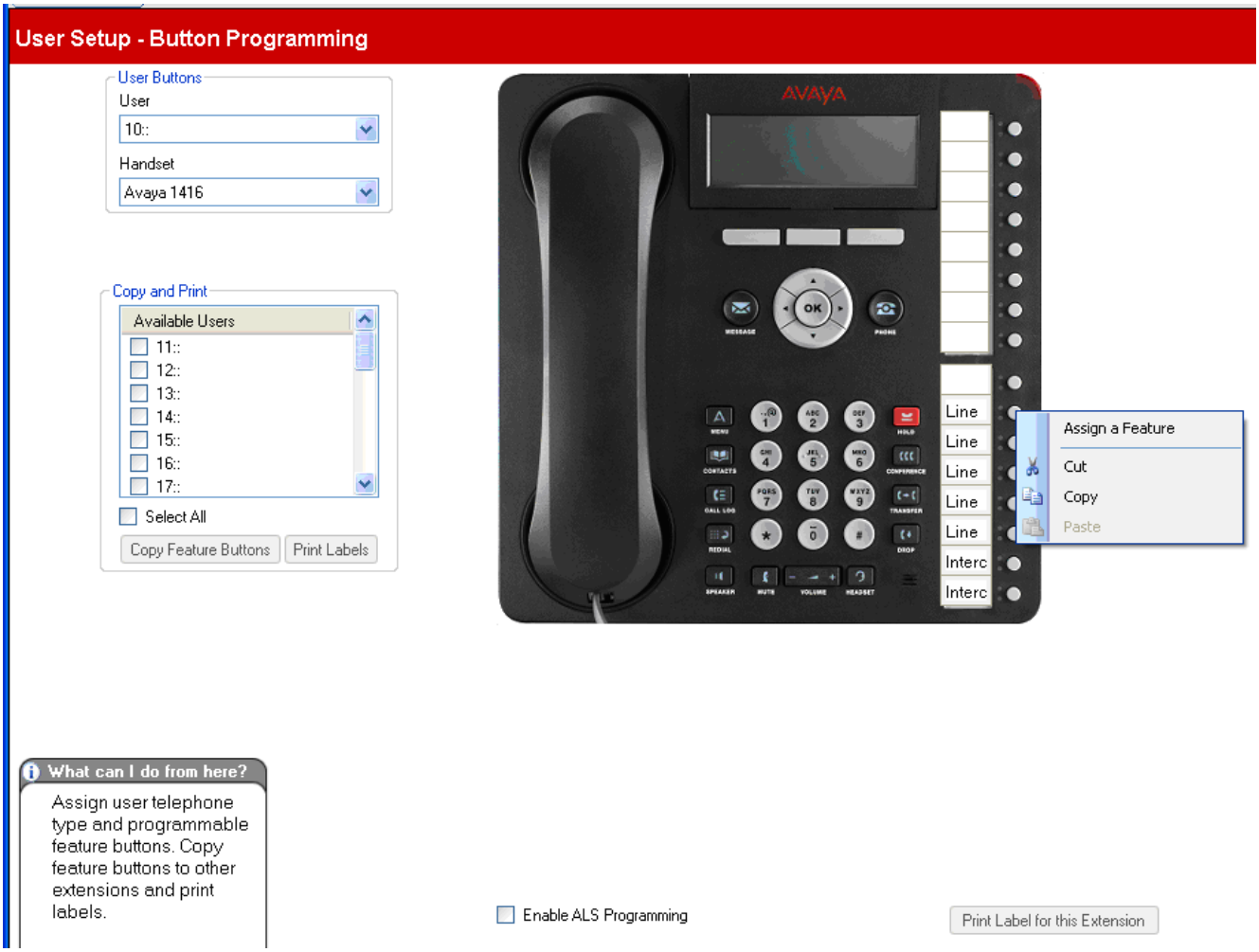
- Select a system user and select a phone model for that user
- Program feature button
- Copy button settings to other users.



- User
  This drop down list is used to select the extension user whose programmed buttons are to be displayed for editing.
- Handset
  When a configuration is loaded from the telephone system at Manager 7 start-up, the type of phone currently plugged into that extension port is displayed. You can assign or change the type of phone by selecting from the drop down list of supported phones. When a handset is selected a picture of that handset is displayed, which enables you to graphically program 36 the buttons.
  ⚠ Any change will not be effective until the configuration file is saved back to the SD 8 card

- Copy and Print
  This section of the dialog allows you to copy the current users button program settings to other extension users.
  - Available Users
    Select the users to which you want apply either of the actions below.
  - Copy Feature Buttons
    Copy 34 the current user's button programming to the selected users. You select the extension (or several) which you want to program to be the same as the current user.
  - Print Labels
    If you have the DESI label printing application installed on the computer, this control offers a list of connected printers and transfers the information required to print labels to the selected machine.
- Buttons
  This table displays the list of features programmed on each of the users buttons.
  - Button
    The button to which the feature is programmed. The position of the button will vary depending on the type of phone.
  - Label
    If the phone displays text labels next to each button, you can enter the text that should be displayed. To enter the label click on the label space after having selected the action for the button.
  - Action
    This is the action performed by the button when pressed. To select the action place your cursor in the box, right click and select Assign a Feature from the drop menu. This will display a comprehensive dialog from which you can select the feature required. See Programming Features 37 in the next section.
    Note: You cannot assign a feature to an appearance button (1 and 2).
  - Action Data
    For some actions, when selecting the action you are asked to enter action data.
- Enable ALS Programming
  This checkbox enables or disables Automatic Line Selection to specify the order in which the system selects an available line (intercom or outside) when a user at the extension lifts the handset or presses S to make a call without first selecting a specific line button.
- Print Label for this Extension
  If you have the DESI label printing application installed on the computer, this control transfers the information required to print labels for the current user.

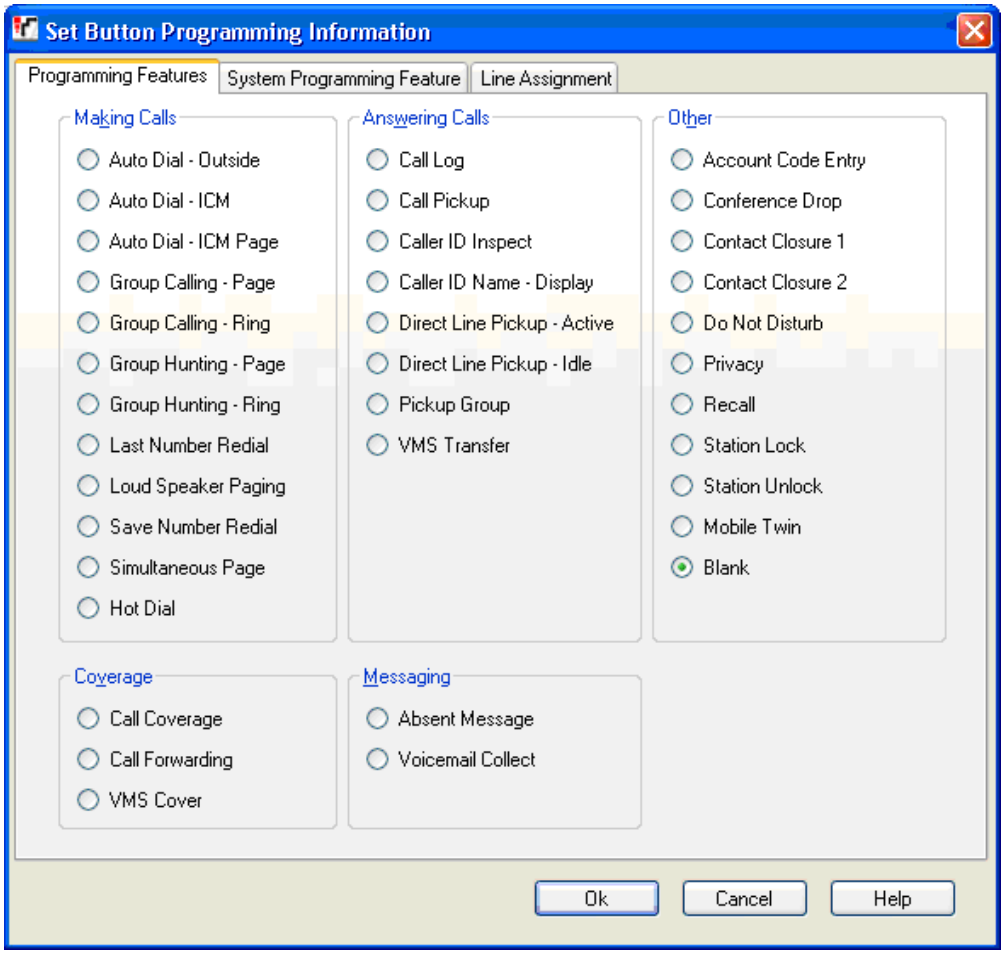
2.8.1 Graphical Programming



- Default labels are assigned to buttons but when you click your mouse pointer on a button label you can edit it.
- Right click a button to assign or reassign a feature 37. The appropriate programming feature display is presented for you to make a selection.
- The right mouse click also enables you to cut and paste button labels and features to other unassigned buttons.

2.8.2 Programming Features

This dialog allows a range of individual functions to be assigned to the button.



- Blank
  When selected, this option removes all programming from the button.

Feature	Description	FAC
Making Calls		
Auto Dial - Outside	These buttons can be used to store a number which, when pressed, is dialed to the user extension's first available line appearance.	
Auto Dial - ICM	equivalent of a User button. Pg 27 of 139695	
Auto Dial - ICM Page	direct dial	
Group Calling - Page	This button can be used to page the available members of a calling group.	*7*G*
Group Calling - Ring	This button can be used to call a calling group.	7*G*
Group Hunting - Page		*77*G*
Group Hunting - Ring		77*G*
Last Number Redial	Redial the number of the last outgoing external call dialed by the user.	05
Loud Speaker Paging		
Save Number Redial	Save the number of the last outgoing external call dialed by the user. Can then be used to redial the saved number.	04
Simultaneous Page	Simultaneous paging is paging of an extension connected to a external paging amplifier (Loudspeaker Paging 67) and the available members of calling group 1 at the same time.	*70

Hot Dial	Turns hot dial on or off. For ETR extensions hot dial if off by default. For 1500 Series extensions hot dial is on by default. When on, the extension user is able to begin dialing without going off-hook.	26
Answering Calls		
Call Log	Allows the user to access the call log. The user must also be one of the 3 extensions configured for *Log All Caller ID Calls for Users*.	23
Call Pickup	Do call pickup from the target extension. If the target has parked calls, a parked call is retrieved in preference to any ring call at the target. Extension users can park calls by transferring the call to themselves. Parked calls will recall after 3 minutes.	
Caller ID Inspect	When off hook on a call, pressing this button allows the user to then press another active line appearance or intercom button to view caller number information for that call.	17
Call ID Name - Display	When off hook on a call, pressing this button allows the user to then press another active line appearance or intercom button to view caller name information for that call.	16
Direct Line Pickup - Active	Allows the user to pickup a ringing, held or connected call on a specific line. Users can also dial intercom 68*LL* where *LL* is the line number.	68*LL*
Direct Line Pickup - Idle	Allows the user to seize and make a call using a specific line if that line is idle. Users can also dial intercom 8*LL* where *LL* is the line number.	8*LL*
Group Pickup	Allows the user to pickup the longest ringing call at the specified group.	66*G*
VMS Transfer	Allows the user to transfer a call directly into the voicemail mailbox of another user.	14
Other		
Account Code Entry	Allows the user to enter a voluntary account code to be associated with the current call or with the call made after entry of the account code.	12
Conference Drop	Acts as a call drop button. When used in a conference call the function allows selection of which caller to drop from the conference.	06
Contact Closure 1	Allows the user to activate the phone systems contact closure 1 or contact closure 2. The user must also be a member of the appropriate Contact Closure Group 47. While the contact is on, the button lamp is green at the user's extension and red at any other users configured for the same contact closure. The duration and type of closure is configured in the Contact Closure Group settings.	41
Contact Closure 2		42
Do Not Disturb	Allows the user to redirect all calls while still being able to make calls. Incoming calls follow voicemail coverage if on, else they receive busy.	01
Privacy	Allows the user to switch call privacy on or off during a call. When on, other users with line appearances for the same line are not able to join the call.	07
Recall	Dials the last outgoing number	
Station Lock	This feature allows the user to lock their extension by entering a 4 digit code. When locked, the extension can only be used to make emergency calls and dial marked speed dials. To unlock the phone the same 4 digit code must be used.	21
Station Unlock	This feature allows the operator (extension 10) to unlock any extension without knowing the 4 digit code that was used to lock the extension.	22
Mobile Twin	Transfers call to mobile number if unanswered	
Coverage		

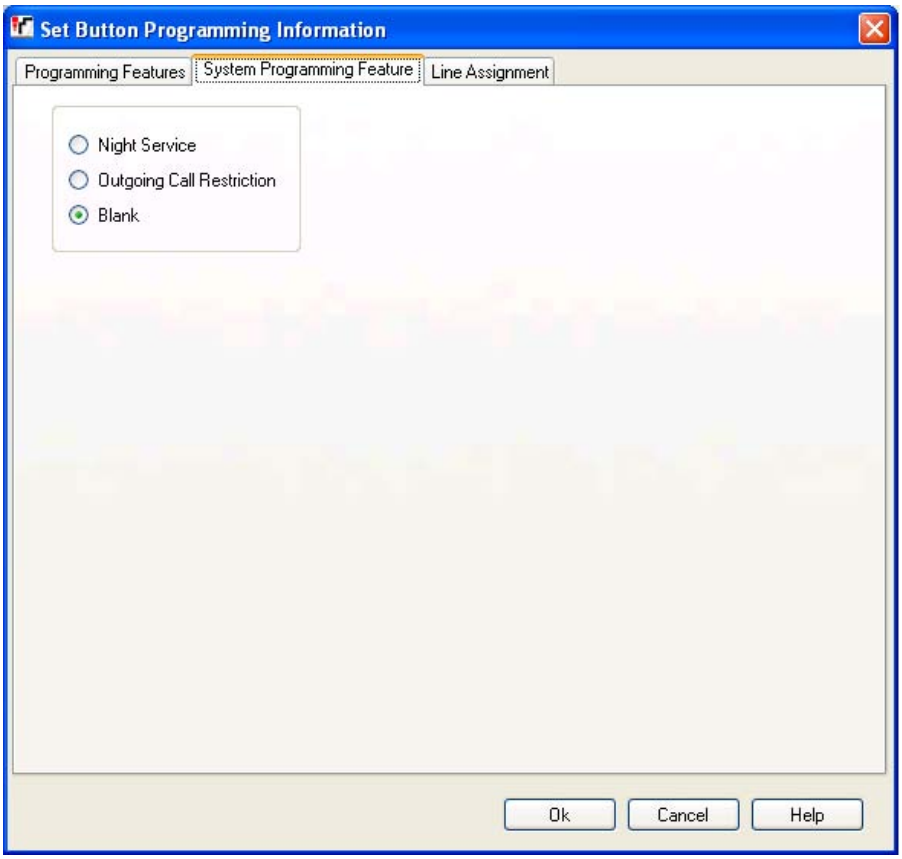
Call Coverage	Allows calls to a specified user to be redirected to another user when the initial target's Call Coverage Ring 67 time is exceeded. The button is used to turn coverage on (green lamp) or off (no lamp).	20
Call Forwarding	Allows calls to a specified user to be redirected to another user.	11
VMS Cover	Allows the user to turn the use of voicemail for call coverage of their calls on or off.	15
Messaging		
Absent Text	Allows the user to set or clear an absence text message. When set the message is displayed on their extension and also on an other extensions when it calls the user.	28

2.8.3 System Programming Features

These features are linked to the usage of the System Password 24 as they affect the operation of the phone system for all users and trunks. This tab and thus the functions on it are only available to extension 10.

System Password - is a four digit password that must be entered to make changes to local settings such as call barring, night service and other dialling restrictions. It can only be changed by an administrator using a telephone handset at extension 10

1. Dial #403
2. Dial four digits to set the password

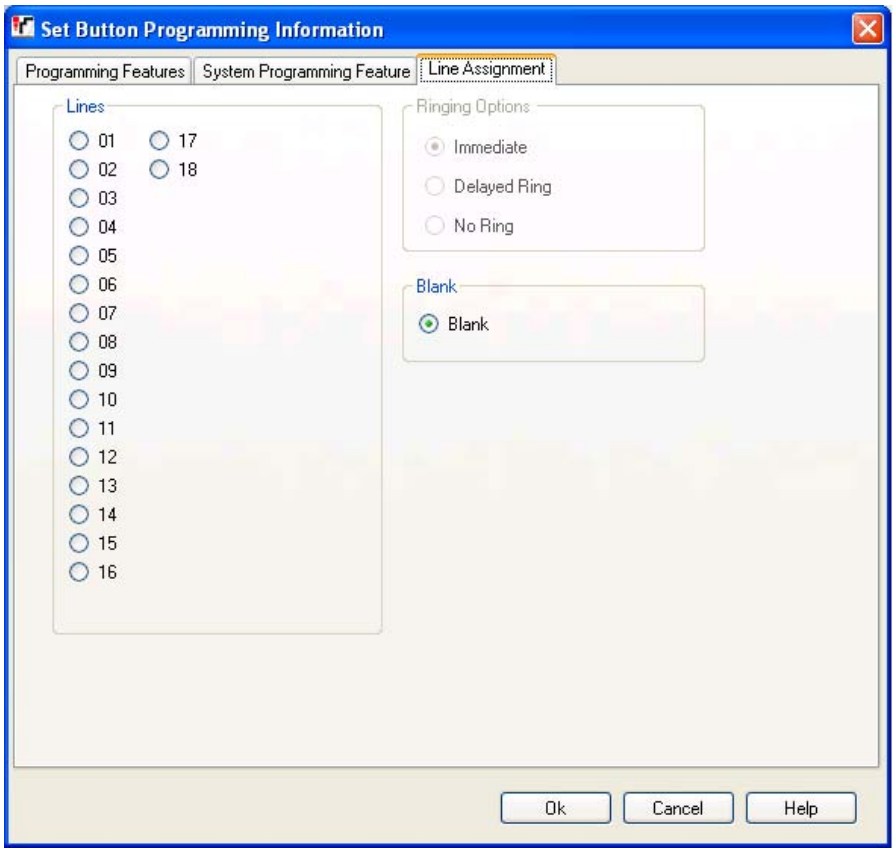


- Night Service
  A button set to this function allows the user to switch night service on or off. The System Password is required to use this feature. When night service is on, use and behavior of VMS on some trunks may change depending on the trunk configuration. Also when night service is on, users in the night service group 42 must first use the System Password to make outgoing external calls other than emergency calls.
- Outgoing Call Restriction (Not yet implemented)
  A button set to this function allows the user to switch outgoing call restriction on or off. The System Password is required to use this feature. When outgoing call restriction is on, users must use the System Password to make outgoing external calls other than emergency calls.
- Blank
  When selected, this option removes all programming from the button.

2.8.4 Line Assignment

This dialog enables you customize lines by setting the programmable button as a line appearance button to make and answer calls on a particular line.

- Note that a number of each users programmable buttons are automatically configured as line appearance button according to the system Lines per phone 26 setting.



- Lines
  Select the line with which the line appearance button will be associated. Line appearances are created when PRI and SIP channels are put into service.
- Ringing Options
  Select whether the phone should provide audible alerting when a call is waiting to be answered on the line.
  - Immediate
    Provide audible alerting as normal.
  - Delayed Ring
    Only provide audible alerting after three rings or 15 seconds.
  - No Ring
    Do not provide any audible alerting.
- Blank
  When selected, this option removes all programming from the button.

2.8.5 Printing Button Labels

This option is only enabled if a version of DESI software is also installed on the same PC as IP Office Manager Essential Edition - PARTNER® Version. It can then be used when an IP Office configuration is loaded in Manager.

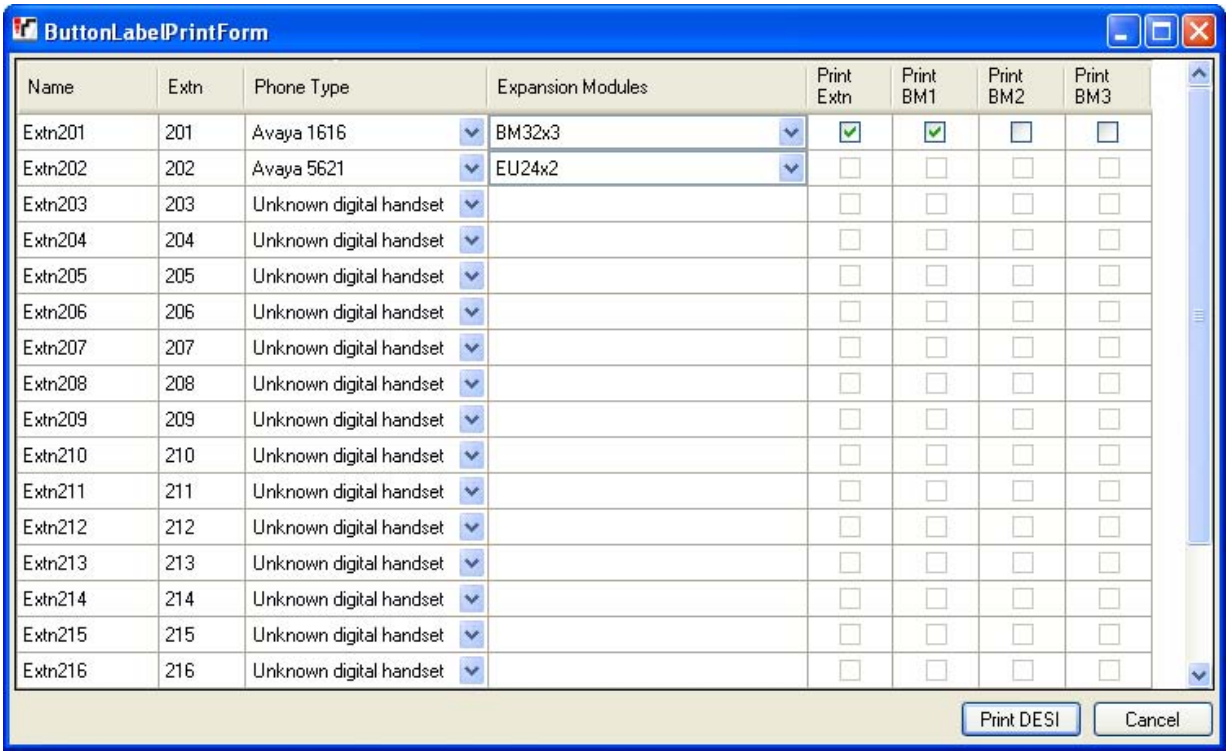
DESI software can be obtained from the Avaya support web site (http://support.avaya.com) or from DESI (http//www.desi.com). Currently, although all IP Office users are shown, only ETR, 1400 and 1600 Series IP Office phones are supported by DESI templates.

The text used on the labels:

- If a text label has been added in the user's Button Programming settings, that text label is passed to the DESI application.
- Note that the DESI application cannot import non-ASCII characters and may render them incorrectly.

- Manager will display a warning if it estimates that the user's current text for some buttons may exceed the label space of the phone type.
- If no text label has been set, the default label for the action currently assigned to the button is passed to the DESI application.
- Once the labels are shown in the DESI application, the label text can be changed.

1. Load the configuration of the IP Office system for which you want to print button labels.
2. Select Tools and then Print Button Labels.



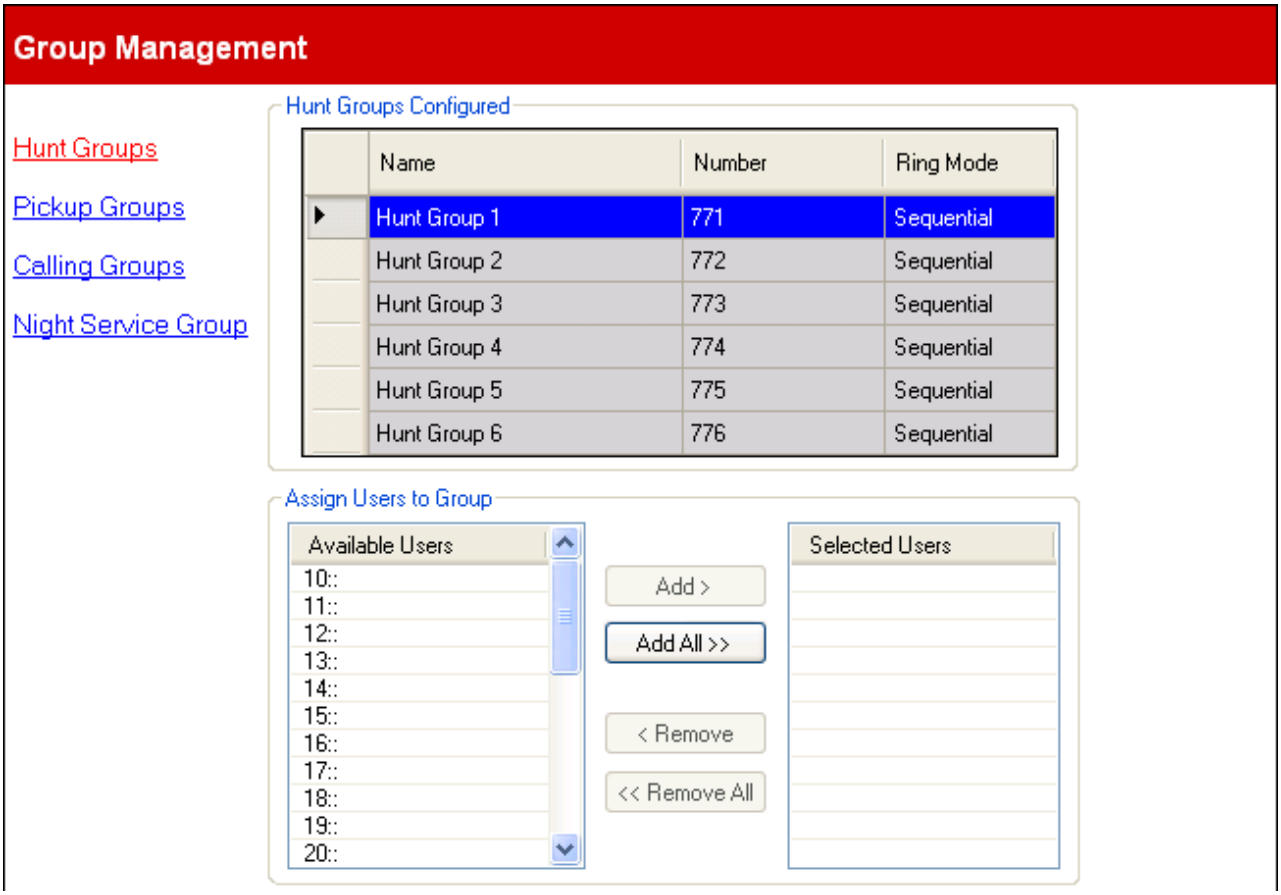
- Name / Extn
  These are the user name and extension number details of the users in the IP Office configuration currently loaded in Manager.
- Phone Type
  This field shows the type of phone, if known, that the user is currently associated with. The drop down can be used to change the selection if required.
- Expansion Modules
  If the phone type supports additional button modules, this drop down can be used to select the type and number of button modules.
- Print Extn
  This check box is used to select whether the phone button details should be included in the output passed to the DESI software. These button will only be selectable if the user's current Phone Type is set to a 1400 Series or 1600 Series phones.
- Print BM1 / Print BM2 / Print BM3
  These check boxes are used to select whether button module button details should be included in the output passed to the DESI software. These button will only be selectable if the user's Expansion Modules is set to the number of BM32 modules.

3. Click Print DESI to transfer the information to the DESI application. Within DESI, edit the labels as required and then print the labels.

2.9 Manage Hunt Groups

A hunt group is a collection of users accessible through a single directory number. Calls to that hunt group can be answered by any available member of the group. The order in which calls are presented can be adjusted by selecting different group types and adjusting the order in which group members are listed.

The Group Management dialog is used to configure which extensions are members of the different available groups. You can also indicate which groups a user uses through the User Setup 33 dialog.



Group Category	Number	Ring Mode	Description
Hunt Groups	6	Sequential	Hunt groups are usable as the coverage destination for incoming external calls. Six hunt groups, with extension numbers 771 to 776, may be configured. Each extension can be a member of several hunt groups.
Pickup Groups	4	Sequential	Users can be configured to pickup a call currently alerting any member of a pickup group. Four pickup groups can be configured.
Calling Groups	4	Ring All	Users can call or transfer calls to a calling group. Four calling groups, with extension numbers 71 to 74, can be configured.
Night Service Group	1	Ring All	When the phone system is set to night service mode, incoming external calls other than those routed by DDI mapping are rerouted to the users in the night service group.

- Name: *Information only, not editable.*
- Number: *Information only, not editable.*
- Ring Mode: *Information only, not editable.*
  The ring mode of a group sets the order in which members of the group are used.
  - *Sequential*
    The available group members are alerted one at a time in sequence starting from the lowest numbered pickup group extension number to the highest. Ringing calls are picked up in oldest first order.
  - *Ring All*
    All the available group members are alerted at the same time.

- *Assign Users to Group*
  This table is used to select which extension users are members of the group.

Changing the name of a hunt group has the following effects:

- A new empty mailbox is created on voicemail with the new hunt group name.
- Entries in other groups' Overflow lists will be updated.
- Out-of-Service and Night-Service fallback references are updated.

Modifying the extension number of a hunt group updates the following:

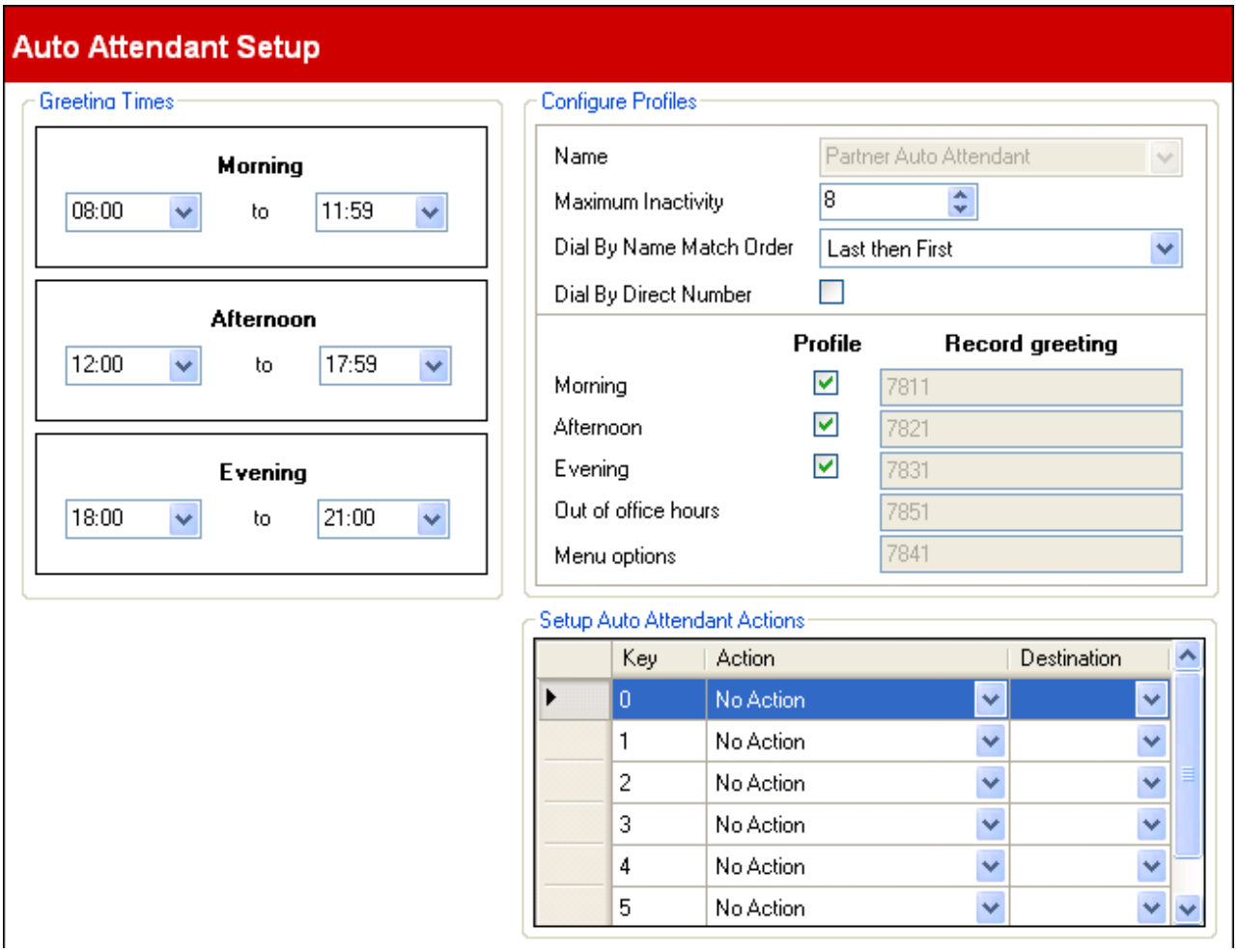
- Group buttons.
- Overflow, Out of Service Fallback and Night Service Fallback group entries.
- Incoming call route entries.

When a hunt group is deleted, all references to the deleted group will be removed including:

- Entry in Incoming call routing table.
- Transfer target in internal auto-attendant.
- Overflow, Night-Service or Fallback-Service on other groups.

2.10 Auto Attendant Setup

This dialog is used to configure the auto attendant facilities provided by the phone system.



- Greeting Times
  The auto attendant can provide different greetings at different times of the day. The greeting is always followed by the dialog options greeting. These fields are used to set the time periods during which the different greetings are used. If the time periods overlap, the greeting used is the first one that is valid for the time period in the order morning, afternoon or evening. For call outside the configured time periods the out of office hours greeting is used.
- Configure Profiles
  These are the general settings for the auto attendant.

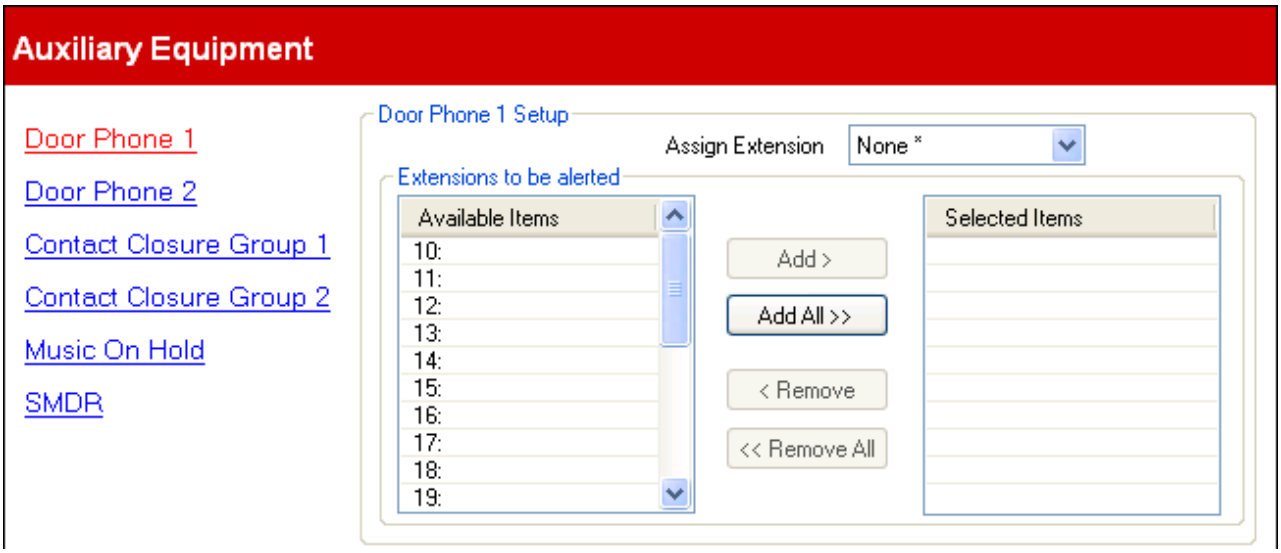
- Name: *Information only, not editable.*
- Maximum Inactivity: *Default = 8 seconds; Range = 1 to 20 seconds.*
  This field sets how long after playing the prompts the auto attendant should wait for a valid key press. If exceeded, the caller is transferred to the operator (extension 10).
- Dial by Name Match Order: *Default = First Name/Last Name.*
  Determines the name order used for keys set to the *Dial by Name* action. The options are *First then Last* or *Last then First*.
- Direct Dial-By-Number: *Default = Off.*
  This setting affects the operation of any key presses in the auto attendant dialog set to use the *Dial By Number* action.
  - If selected, the key press for the action is included in any following digits dialed by the caller for extension matching. For example, if 2 is set in the actions to *Dial by Number*, a caller can dial 201 for extension 201.
  - If not selected, the key press for the action is not included in any following digits dialed by the caller for extension matching. For example, if 2 is set in the actions to *Dial by Number*, a caller must dial 2 and then 201 for extension 201.
- Morning/Afternoon/Evening/Out of Hours/Menu Options:
  Each auto-attendant can consist of distinct time periods, defined by associated time profiles. A greeting can be recorded for each period. The appropriate greeting is played to callers and followed by the Menu options greeting which should list the available actions.
  - *Out of Hours Greeting*: Through Manager or using short code a hunt group can be taken in or out of service. When the group is Out of Service, callers are played the group's "Out of Hours" greeting and can then leave a message. Alternatively if an Out of Service Fallback Group has been configured, then callers are passed to that group.

    Similarly a group can be taken in or out of Night Service by using Manager, short codes or an associated time profile. When the group is in Night Service, callers are played the group's "Out of Hours" greeting and can then leave a message.
    Note: Alternatively if an Out of Hours Fallback Group has been configured then callers are passed to that group
  - Profile
    Select whether the time profile is used.
  - Record Greeting
    These fields are not editable. They indicate the short code to be dialled on the phone system to record the different parts of the auto attendant greeting.

- Setup Auto Attendant Actions
  This table allows you to assign which key presses have associated actions for the auto attendant.
  - Key
    The standard telephone dial pad keys, *0* to *9* plus *, # and *Fax*.
  - Action
    The following actions can be assigned to each key.
    - *No Action*
      The corresponding key takes no action.
    - *Dial by Name*
      Callers are asked to dial the name of the user they require and then press #. The recorded mailbox name prompts of matching users are then played back for the caller to make a selection. The name order used is set by the Dial by Name Match Order setting. Users without a recorded name prompt or set to Ex Directory are not included. Users can record their name by accessing their mailbox and dialing *05.
    - *Dial By Number*
      This option allows callers with DTMF phones to dial the extension number of the user they require. No destination is set for this option. The Direct Dial-By-Number setting above determines how the digits dialed with this action are used.
    - *Transfer to Number*
      Transfer the call to the extension or group selected in the Destination field.
    - *Replay Greeting*
      Repeats greeting on transfer
  - Destination (only active when Transfer to Number is selected as Action)
    Sets the destination for the Transfer to Number action. The drop down list can be used to select from the available extension and groups configured on the phone system. This list contains an option to collect voicemail.

2.11 Auxiliary Equipment

These dialogs are used to configure the operation of a range of additional features provided by the telephone system.

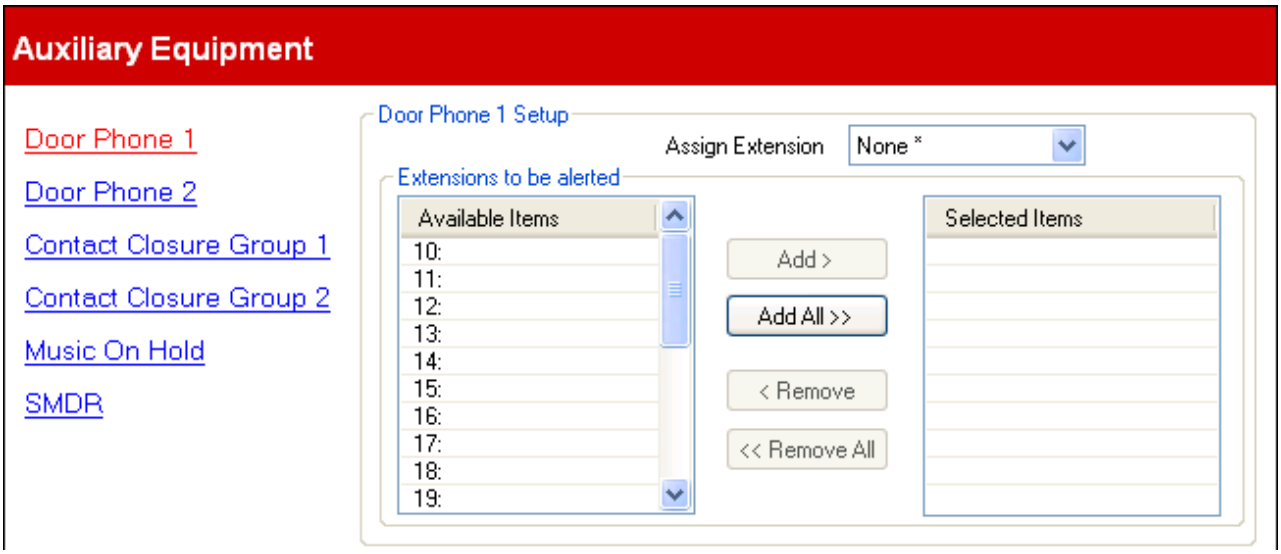


Equipment	Description
Door Phone	If a handset has been configured as being a door phone, you can specify which extension is alerted when that door phone is used. Two door phones can be configured into the system. See Door Phone 45 for further detail.
Contact Closure	The phone system has two ports which can be connected to external relay systems, for example systems used to open doors. You can configure which users are able to activate those ports and the type of activation. See Contact Closure 47 for further detail.
Music on Hold	The phone system supports an external music on hold source. This is played to callers when they are put on hold. The source of the music is connected to the phone system by the system maintainer. ⚠ This feature is not yet implemented.
SMDR	The phone system can log call details at the end of each call. These records (referred to as Station Message Detail Recording or SMDR) can be output and sent to a specified IP address where they can be collected and processed by 3rd party call logging software.

2.11.1 Door Phone

If a handset has been configured as being a door phone, you can specify which extension is alerted when that door phone is used. Two door phones can be configured into the system.

There are two separate dialogs, one for Door Phone 1 and one for Door Phone 2. Each has the same range of settings.



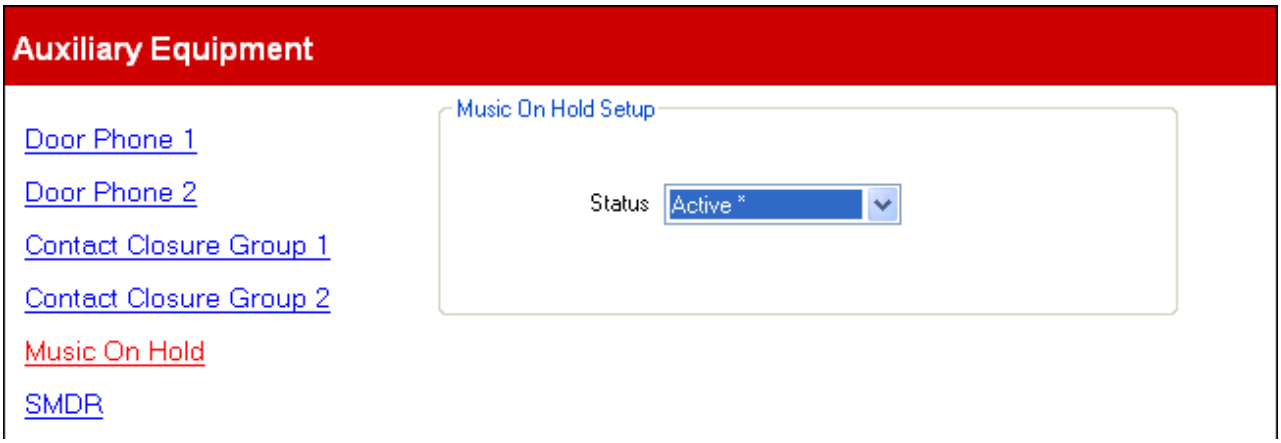
- Assign Extension: *Default = None*
  Use the drop down list to select the extension to which the door phone is connected. The extension Equipment Type (User Setup | Advanced Settings 67) is set to *Door Phone 1* or *Door Phone 2* as appropriate.
- Extensions to be alerted: *Default = None*
  This table is used to select which extensions are alerted and can answer when the door phone is used.

2.11.2 Music on Hold

⚠ Note: Music on hold feature is not yet implemented.

The phone system supports an external music on hold source. This is played to callers when they are put on hold. The source of the music is connected to the phone system by the system maintainer.

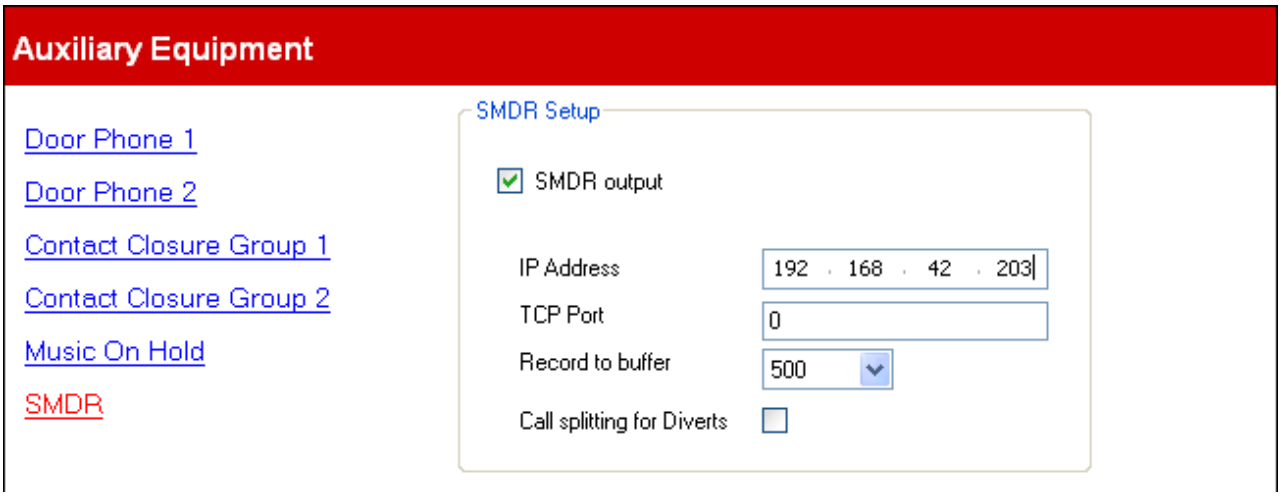
The phone systems music on hold source can also be used for callers being transferred instead of using ringing tone. This depends on the Ring on Transfer 70 setting.



- Status: *Default = Active.*
  If active, the phone system will use the external music source connected to the phone system. If not selected, the phone system provides a double beep tone repeated every 5 seconds.

2.11.3 SMDR

The phone system can log call details at the end of each call. These records (referred to as Station Message Detail Recording or SMDR) can be output and sent to a specified IP address where they can be collected and processed by 3rd party call logging software.

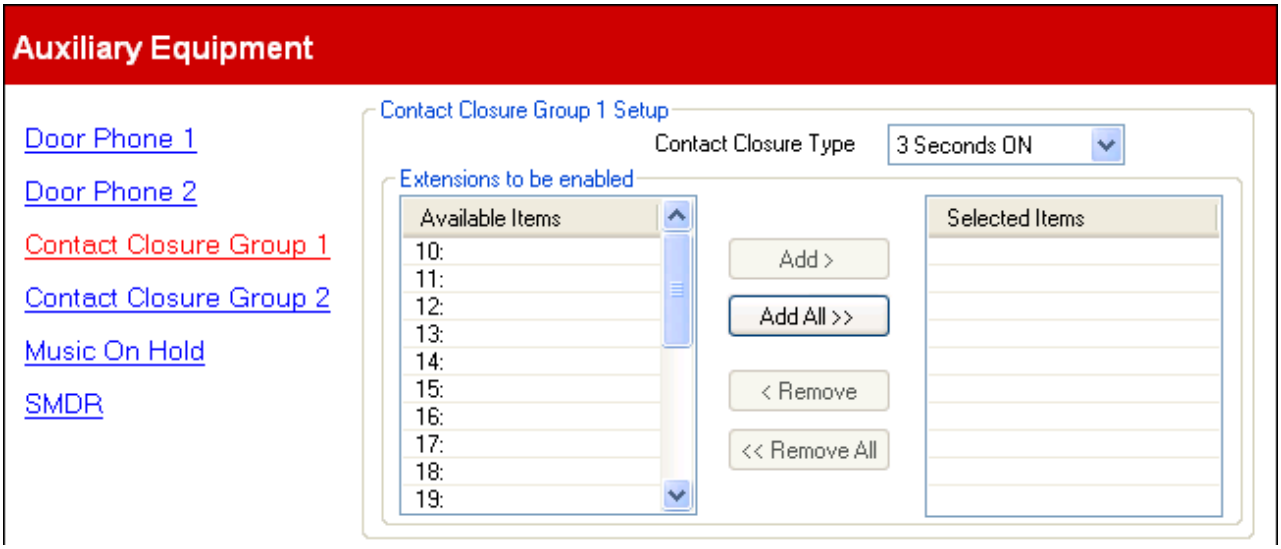


- SMDR output: *Default = Off*
  This control can be used to switch the output of SMDR on or off.
  - IP Address: *Default = 0.0.0.0 (Listen).*
    The destination IP address for SMDR records.
  - TCP Port: *Default = 0.*
    The destination IP port for SMDR records.
  - Record to Buffer: *Default = 500, Range = 10 to 3000.*
    The phone system can buffer up to 3000 SMDR records if it detects a communications failure with destination address. When the buffer is full, each new record overwrites the oldest record.
  - Call Splitting for Diverts: *Default = Off.*
    When enabled, for calls forwarded off-switch using an external trunk, the SMDR produces separate initial call and forwarded call records. This applies for calls forwarded by forward unconditional, forward on no answer, forward on busy, DND or mobile twinning. It also applies to calls forwarded off-switch by an incoming call route. The two sets of records will have the same Call ID. The call time fields of the forward call record are reset from the moment of forwarding on the external trunk.

2.12 Contact Closure Group

The phone system has two ports which can be connected to external relay systems, for example systems used to open doors. You can configure which users are able to activate those ports and the type of activation.

There are two separate dialogs, one for Contact Closure Group 1 and one for Contact Closure Group 2. Each has the same range of settings.

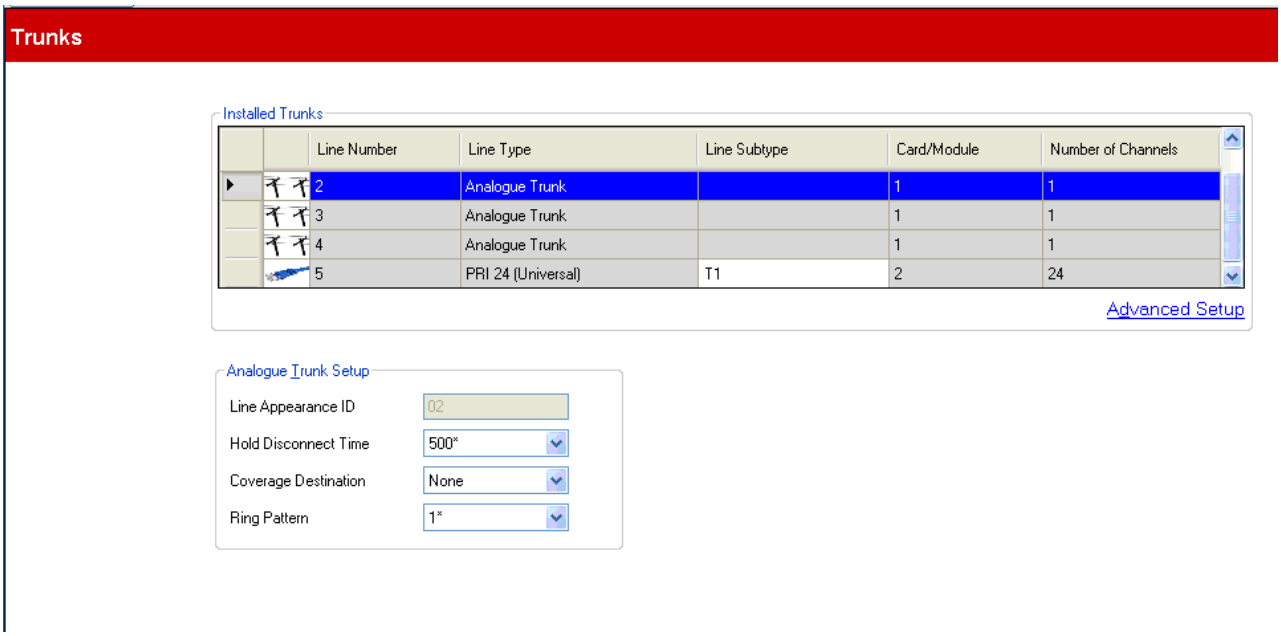


- Contact Closure Type: *Default = 3 seconds On*
  Sets how long the closure is activated when a user presses a contact closure button. The options are *1 Second On*, *3 Seconds On*, *5 Seconds On* and *Toggle*. (change the contact between open or closed).

- Extensions to be enabled: *Default = None*
  This table is used to select which user extensions are able to activate the contact closure by dialing feature codes at their extension or using programmable buttons set to the Contact Closure 37 feature.

2.13 Trunks

The Trunks dialog displays a list of the Installed Trunks (excluding SIP trunks 62).



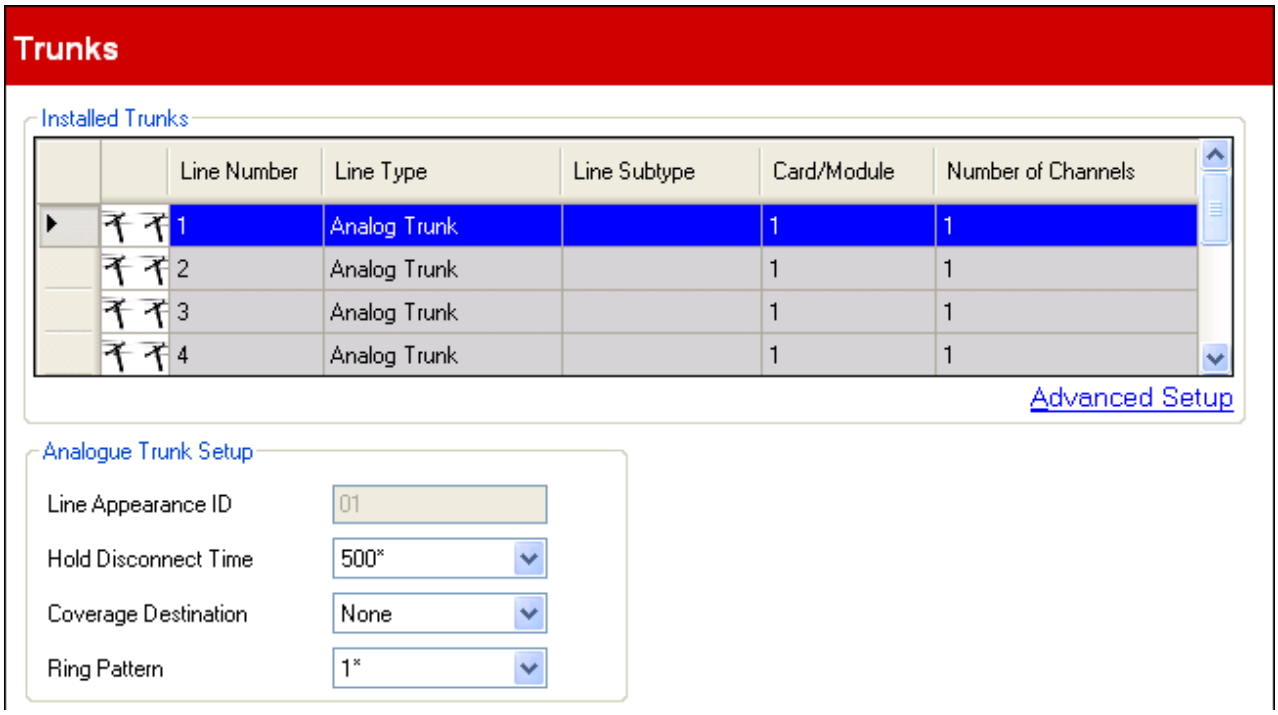
- Installed Trunks
  This table displays information about the trunk cards installed in the phone system. Selecting a trunk in the list displays its trunk settings below the list.
  - Line Number: *Information only, not editable.*
  - Line Type
    This value indicates the type of trunk, *not editable* .
  - Line Subtype
    PRI trunks can be configured as either *PRI* 51 or *T1* 57 to match the line provider.
  - Card/Module
    Indicates the card slot or expansion module being used for the trunk device providing the line. 1 to 4 match the slots on the front of the phone system from left to right. Expansion modules are numbered from 6 upwards.
  - Number of Channels
    PRI trunks can provide multiple channels depending on the selected Line Subtype.
- Advanced Setup
  This hot link option calls up a further window that is used to display and edit additional settings for the selected trunk and its trunk channels.

Selecting a trunk in the list displays its trunk settings below the Installed Trunks list. Those settings differ depending on the Line Type and its selected Line Subtype.

- Analog Trunk 48
- PRI 24 (Universal) - PRI 51
- PRI 24 (Universal) - T1 57

2.13.1 Analog Trunks

If a trunk with the Line Type of *Analog* trunk is selected in the list of installed trunks, its settings are displayed below the list of installed trunks.



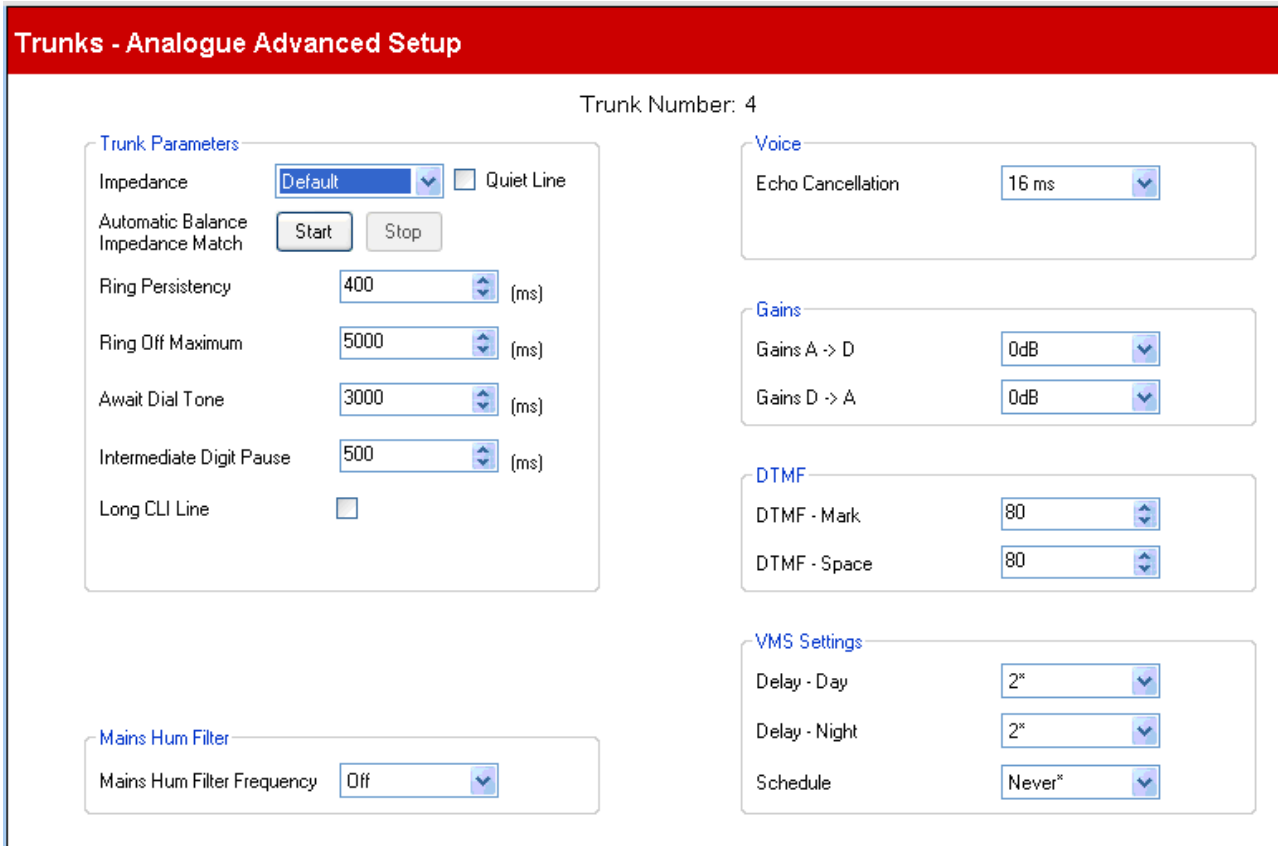
Clicking on Advanced Setup 49 when an Analog Trunk line type is selected in the list, accesses a dialog of additional settings.

- Analog Trunk Setup
  - Appearance ID: *Default = Auto-assigned, Range = 2 to 9 digits.*
    Used for configuring Line Appearances with button programming. The line appearance ID must be unique and not match any extension number.
  - Hold Disconnect Time: *Default = 500ms*
    Also know as Disconnect Clear or Reliable Disconnect. This is a method used by the analog line provider to signal that the call has ended.
  - Coverage Destination: *Default = None.*
    If set to *None*, calls on the channel only alert on user extensions with line appearance buttons that match the channels Appearance ID. Alternatively a specific extension, hunt group, calling group or the auto attendant can be selected to also receive call alerting for incoming calls on the channel.
    - When the phone system is in night service mode, calls alert at the members of the Night Service 42 group.
  - Ring Pattern: *Default = 1*
    Selects the ring pattern that should be used for the call when alerting on a user extension.

Pattern	Ringing
1	1s ring, 2s off, ...
2	0.25s ring, 0.25s off, 0.25s ring, 0.25s off, 0.25s ring, 1.75s off, ...
3	0.4s ring, 0.8s off, ...
4	2s ring, 4s off, ...
5	2s ring, 2s off, ...
6	0.945s ring, 4.5s off, ...
7	0.25s ring, 0.24 off, 0.25 ring, 2.25 off, ...
8	1s ring, 3s off, ...

2.13.1.1 Analog Advanced Setup

Because some settings can conflict with, or nullify other settings, do not use this dialog except under direction of a trained Avaya technician or when directed to do so by support personnel.



- Trunk Parameters
  - Impedance: *Default = Default*
    Set the impedance used for the line. .
  - Quiet Line: *Default = Off, (North American only),*
    This setting may be required to compensate for signal loss on long lines.
  - Automatic Balance Impedance Match:
    These controls can be used to test the impedance of a line and to then display the best match resulting from the test. Testing should be performed with the line connected but the phone system otherwise idle. To start testing click Start. The phone system will then send a series of signals to the line and monitor the response, repeating this at each possible impedance setting. Testing can be stopped at any time by clicking Stop. When testing is complete, Manager displays the best match and ask whether that match should be used for the line. If *Yes* is selected, Manager asks whether the that match should be applied to all other analog lines provided by the same analog trunk card or module.
    To conform with the Receive Objective Loudness Rating at distances greater than 2.7km from the central office on the analogue trunks a receive gain of 1.5 db needs to be added
  - Ring Persistency: *Default = 400ms, Range = 0 to 2550ms.*
    The minimum duration of signal required to be recognized.
  - Ring Off Maximum: *Default = 5000ms, Range = 0 to 25500ms.*
    The time before signaling is regarded as ended.
  - Await Dial Tone: *Default = 3000ms, Range = 0 to 25500ms.*
    Sets how long the system should wait before dialing out.
  - Intermediate Digit Pause: *Default = 500ms, Range = 0 to 2550ms.*
    Pause between digits transmitted to the line.
  - Long CLI Line: *Default = Off*
    The CLI signal on some long analog lines can become degraded and is not then correctly detected. If you are sure that CLI is being provided but not detected, selecting this option may resolve the problem.
  - Modem Enabled: *Default = Off*
    The first analog trunk IP500 Analog Trunk cards can be set to modem operation (V32 with V42 error correction). This allows the trunk to answer incoming modem calls and be used for system maintenance. When on, the trunk can only be used for analog modem calls. The default system short code *9000* can be used to toggle this setting.
- Mains Hum Filter

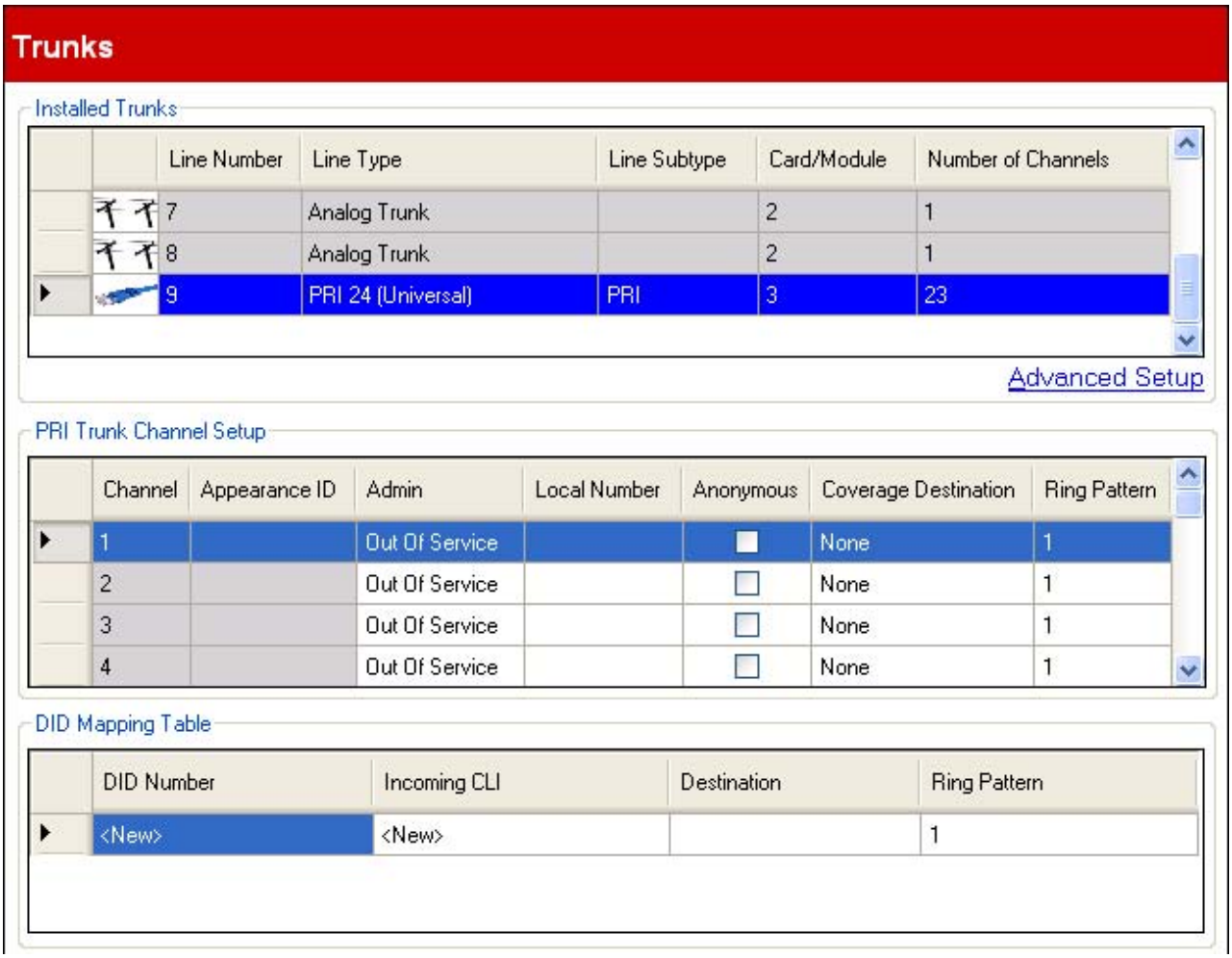
- Mains Hum Filter: *Default = Off.*
  If mains hum interference on the lines is detected or suspected, this settings can be used to attempt to remove that interference. Useable with ATM16 trunks and IP500 ATM4U trunks. Options are *Off*, *50Hz* or *60Hz*.

- Voice
  - Voice Recording: Not available in current version
  - Echo Cancellation: *Default = 16ms.*
    Allows settings of *Off*, *8*, *16*, *32*, *64* and *128* milliseconds. The echo cancellation should only be adjusted as high as required to remove echo problems. Setting it to a higher value than necessary can cause other distortions.
- Gains:
  These settings should not be adjusted without guidance from the line provider.
  - A -> D: *Default = 0dB*
    Sets the analog to digital gain. Range -4.0dB to +3.5dB in 0.5dB steps.
  - D -> A: *Default = 0dB*
    Sets the digital to analog gain. Range -4.0dB to +3.5dB in 0.5dB steps.
- DTMF
  - DTMF Mark: *Default = 80 (80ms), Range = 0 to 255.*
    Interval when DTMF signal is kept active during transmission of DTMF signals.
  - DTMF Space: *Default = 80 (80ms), Range = 0 to 255.*
    Interval of silence between DTMF signal transmissions.
- VMS Settings
  - VMS Delay - Day: *Default = 2, Range = 0 to 6 (number of rings).*
    Set the number of rings before an unanswered call should be redirected to the voicemail system auto attendant.
  - VMS Delay - Night: *Default = 2, Range = 0 to 6 (number of rings).*
    Sets the number of rings before an unanswered call should be redirected to the voicemail system auto attendant.
  - VMS Schedule: *Default - Never*
    This option determines when unanswered calls should be redirected to the voicemail system. The delay for the redirection is set by the VMS Delay -Day and VMS Delay - Night values for the channel. The options are *Always*, *Day Only*, *Night Only* or *Never*.

2.13.2 PRI Trunks

If a trunk with the Line Subtype of *PRI* is selected in the list of installed trunks, its settings are displayed below the list of installed trunks.

Clicking on Advanced Setup 53 when a PRI line type is selected, accesses a dialog of additional settings for the trunk and settings for the trunks individual channels.



- PRI Trunk Channel Setup
  - Admin: *Default = Out of Service*
    Options are *In Service*, *DID Only*, *Maintenance* and *Out of Service*.
  - Channel: *For information only, not editable.*
  - Appearance ID: *Default = Auto-assigned, Range = 2 to 9 digits.*
    Used for configuring Line Appearances with button programming. The line appearance ID must be unique and not match any extension number.
  - Local Number
  - Anonymous: *Default = Off*
  - Coverage Destination: *Default = None.*
    If set to *None*, calls on the channel only alert on user extensions with line appearance buttons that match the channels Appearance ID. Alternatively a specific extension, hunt group, calling group or the auto attendant can be selected to also receive call alerting for incoming calls on the channel.
    - When the phone system is in night service mode, calls alert at the members of the Night Service 42 group.
  - Ring Pattern: *Default = 1*
    Selects the ring pattern that should be used for the call when alerting on a user extension.

Pattern	Ringing
1	1s ring, 2s off, ...
2	0.25s ring, 0.25s off, 0.25s ring, 0.25s off, 0.25s ring, 1.75s off, ...
3	0.4s ring, 0.8s off, ...
4	2s ring, 4s off, ...
5	2s ring, 2s off, ...
6	0.945s ring, 4.5s off, ...
7	0.25s ring, 0.24 off, 0.25 ring, 2.25 off, ...

Pattern	Ringing
8	1s ring, 3s off, ...

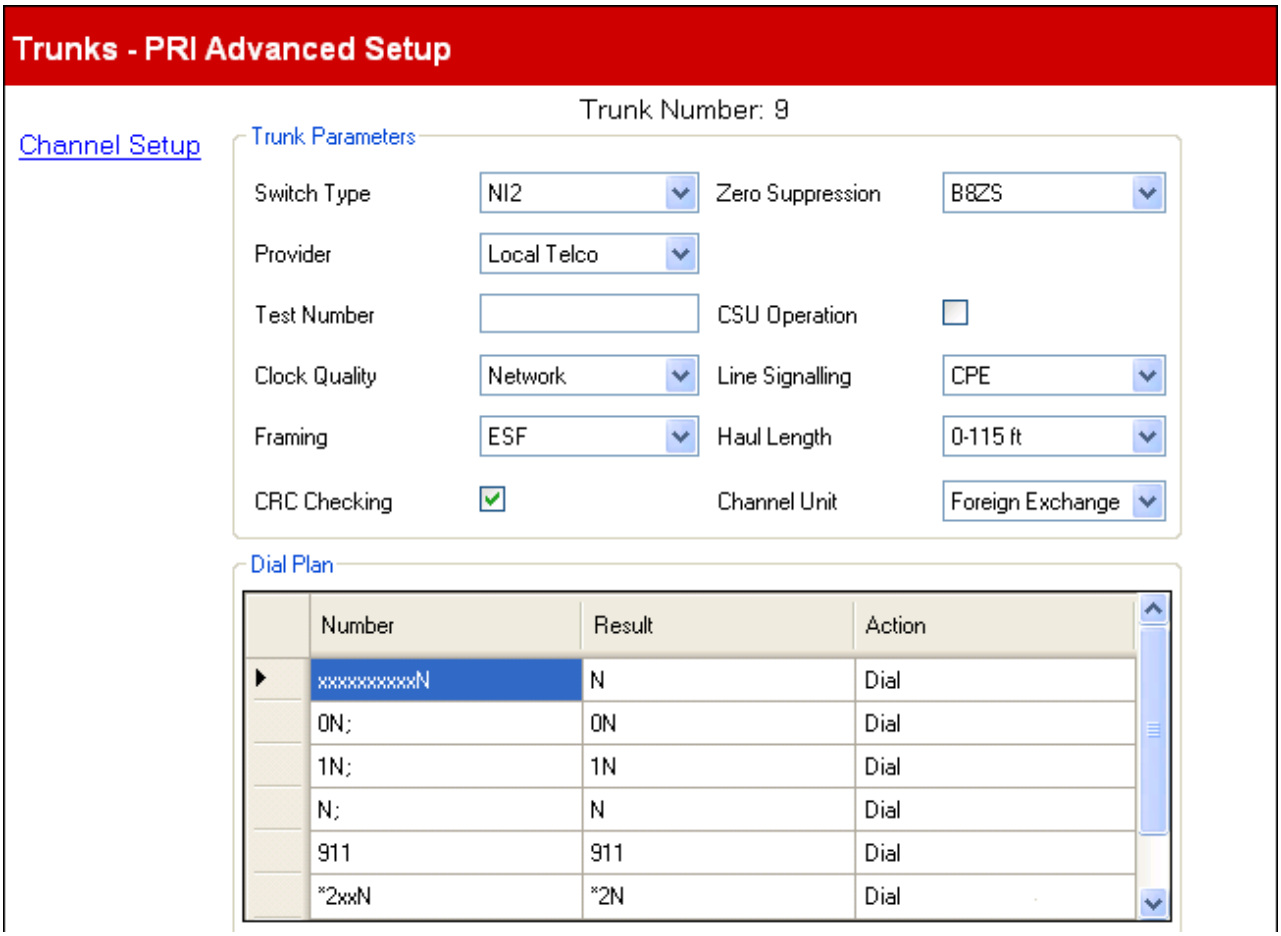
- DID Mapping Table
  This table is used to set the destination for incoming calls based on the DID and ICLID number information received with the call. This will override the Coverage Destination settings of the channel on which the call was received. Calls routing by DDI mapping is not affected by the phone system being put into the night service state.
  - DID Number
    If the incoming DID of a call on the T1 trunk matches the DID set here, it will be routed to this destination.
  - Incoming CLI
    If the incoming caller number on the T1 trunk matches the ICLID set here, it will be routed to this destination.
  - Destination
    When this field is selected, the drop down list allows selection of the extension or group to which calls matching the DID Number or Incoming CLI settings should be routed. The destination can also be set to *Auto Attendant*.
  - Ring Pattern: *Default = 1*
    Selects the ring pattern that should be used for calls routed via this mapping table entry.
  - Ring Pattern: *Default = 1*
    Selects the ring pattern that should be used for the call when alerting on a user extension.

Pattern	Ringing
1	1s ring, 2s off, ...
2	0.25s ring, 0.25s off, 0.25s ring, 0.25s off, 0.25s ring, 1.75s off, ...
3	0.4s ring, 0.8s off, ...
4	2s ring, 4s off, ...
5	2s ring, 2s off, ...
6	0.945s ring, 4.5s off, ...
7	0.25s ring, 0.24 off, 0.25 ring, 2.25 off, ...
8	1s ring, 3s off, ...

2.13.2.1 PRI Advanced

Because some settings can conflict with, or nullify other settings, do not use this dialog except under direction of a trained Avaya technician or when directed to do so by support personnel.

This dialog allows setting of advanced T1 trunk settings that normally do not need to be changed. The Channel Setup 55 option give access to a dialog for configuring individual channels.



- Trunk Parameters
  - Switch Type: *Default = NI2*
    Options *4ESS*, *5ESS*, *DMS100* and *NI2*.
  - Provider: *Default = Local Telco*
    Select the PSTN service provider (*AT&T*, *Sprint*, *WorldCom* or *Local Telco*). When set to AT&T, an additional AT & T Provider Setup 56 dialog can be accessed from the dialog.
  - Test Number:
    Used to remember the external telephone number of this line to assist with loop-back testing. For information only.
  - Clock Quality: *Default = Network*
    This option sets whether the IP Office should try to take its clock source for call synchronization and signalling from this line. Preference should always be given to using the clock source from a central office exchange if available by setting at least one exchange line to *Network*.
    - If multiple lines are set as *Network*, the order in which those lines are used is described in the IP Office Installation Manual. If additional lines are available, *Fallback* can be used to specify a clock source to use should the *Network* source not be available.
    - Lines from which the clock source should not be taken should be set as *Unsuitable*.
    - If no clock source is available, the phone system uses its own internal 8KHz clock source.
  - Framing: *Default = ESF*
    Selects the type of signal framing used (*ESF* or *D4*).
  - CRC Checking: *Default = On*
    Turns CRC on or off.
  - Zero Suppression: *Default = B8ZS*
    Selects the method of zero suppression used (*B8ZS* or *AMI ZCS*).
  - CSU Operation:
    Tick this field to enable the T1 line to respond to loop-back requests from the line.
  - Line Signaling: *Default = CPE*
    The field can be set to either *CPE* (Customer Premises Equipment) or *CO* (Central Office). This field should normally be left at its default of CPE. The setting CO is normally only used in lab back-to-back testing.

- Haul Length: *Default = 0-115 feet*
  Sets the line length to a specific distance.
- Channel Unit: Default = Foreign Exchange
  This field should be set to match the channel signaling equipment provided by the Central Office. The options are *Foreign Exchange*, *Special Access* or *Normal*.

- Dial Plan
  This table is used to process numbers dialled by extension users and convert them to numbers output by the phone system to the line. This outgoing number manipulation is used to "Block up" numbers between the time of seizing the Channel and the INVITE being sent out. The "Blocking up" is configured independently per SIP Trunk, but is shared amongst all the Line Appearances on that trunk.
  By default, the SIP URI convention shall be used in the INVITE.
  The complete default table is:

Dialled Number	Result	Action
xxxxxxxxxxN	N	Dial
0N;	0N	Dial
1N;	1N	Dial
N;	N	Dial
911	911	Dial
*2xxN	*2N	Dial
*3xxN	*3N	Dial
*xxN	*N	Dial
*65		Explicitly not Anonymous
*67		Call Anonymously

Once you dial *65 or *67, you return to dial tone, but these codes can be used to override the "anonymous" flag which is set on a channel-by-channel basis.

Changes to the Dial plan could, for example, be used to change a certain range of numbers from "Dial" to "Local Dial". Where a "Local Dial" would be for targeting numbers on same ITSP. This means the SIP INVITE will say:

INVITE sip:2003@freecalls.com

instead of:

INVITE tel:+2003

You can also bar certain numbers here.

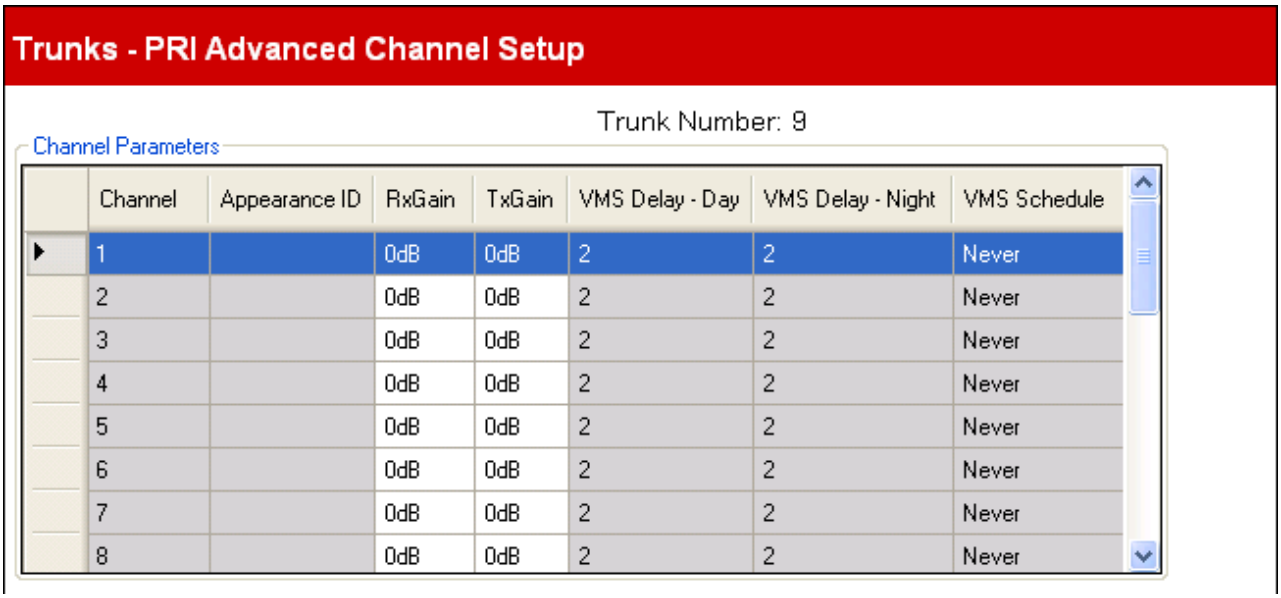
Note that the Allowed and Disallowed tables are in force on SIP Channels in exactly the same way as on Analog trunks, so you should only bar numbers which are specifically inappropriate for dialling over the SIP.

Maximum size of the Dial plan table is set to 20 entries

2.13.2.2 PRI Advanced Channel Setup

Because some settings can conflict with, or nullify other settings, do not use this dialog except under direction of a trained Avaya technician or when directed to do so by support personnel.

This dialog allows the adjustment of settings for each channel of the PRI trunk.

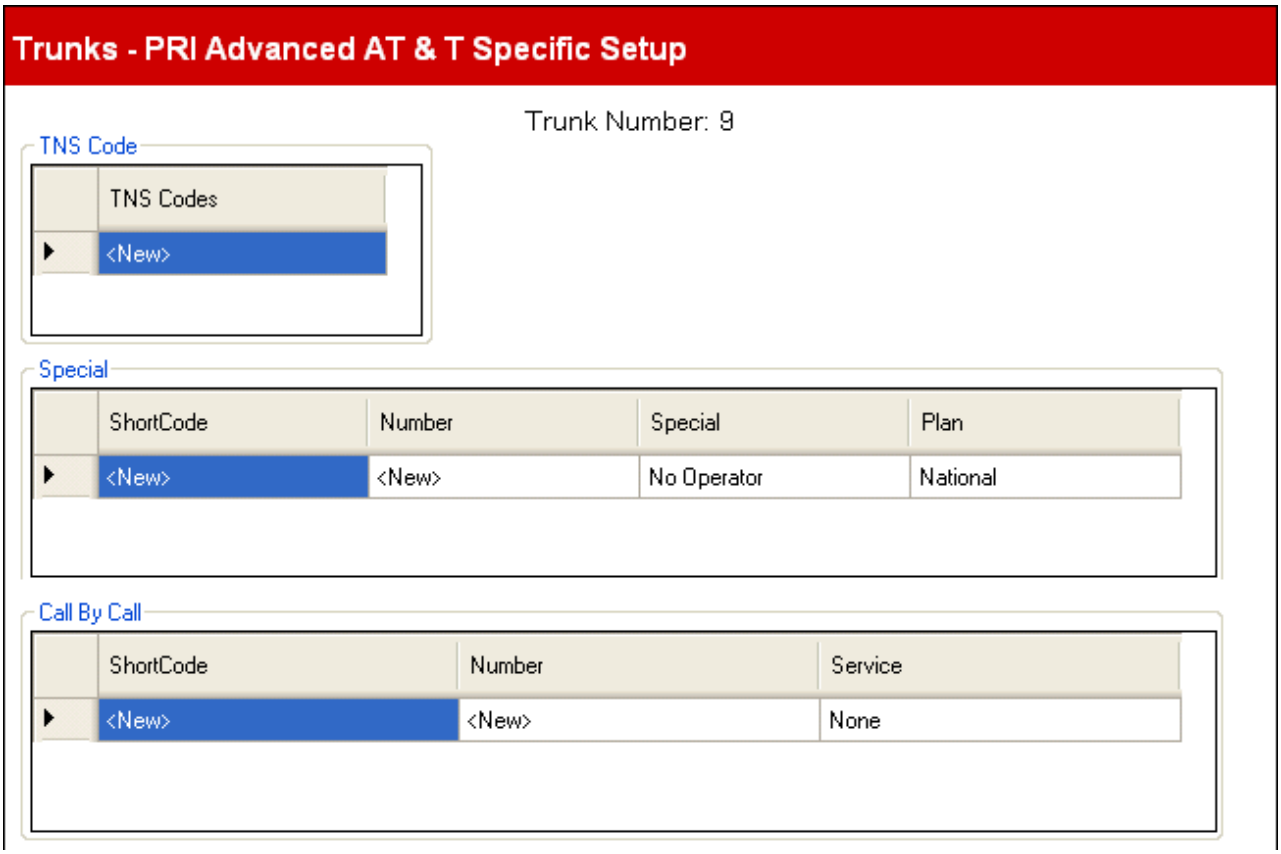

Trunks - PRI Advanced Channel Setup
Trunk Number: 9
Channel Parameters
Channel
Appearance ID
RxGain
TxGain
VMS Delay - Day
VMS Delay - Night
VMS Schedule
1 0dB 0dB 2 2 Never
2 0dB 0dB 2 2 Never
3 0dB 0dB 2 2 Never
4 0dB 0dB 2 2 Never
5 0dB 0dB 2 2 Never
6 0dB 0dB 2 2 Never
7 0dB 0dB 2 2 Never
8 0dB 0dB 2 2 Never

- Channel Parameters
  - Channel: *For information only, not editable.*
  - Appearance ID: *Default = Auto-assigned, Range = 2 to 9 digits.*
    Used for configuring Line Appearances with button programming. The line appearance ID must be unique and not match any extension number.
  - Tx Gain: *Default = 0dB*
    The transmit gain in dB.
  - Rx Gain: *Default = 0dB*
    The receive gain in dB.
  - VMS Delay - Day: *Default = 2, Range = 0 to 6 (number of rings).*
    Set the number of rings before an unanswered call should be redirected to the voicemail system auto attendant.
  - VMS Delay - Night: *Default = 2, Range = 0 to 6 (number of rings).*
    Sets the number of rings before an unanswered call should be redirected to the voicemail system auto attendant.
  - VMS Schedule: *Default - Never*
    This option determines when unanswered calls should be redirected to the voicemail system. The delay for the redirection is set by the VMS Delay -Day and VMS Delay - Night values for the channel. The options are *Always*, *Day Only*, *Night Only* or *Never*.

2.13.2.3 PRI Advanced AT&T Specific Setup

Because some settings can conflict with, or nullify other settings, do not use this dialog except under direction of a trained Avaya technician or when directed to do so by support personnel.

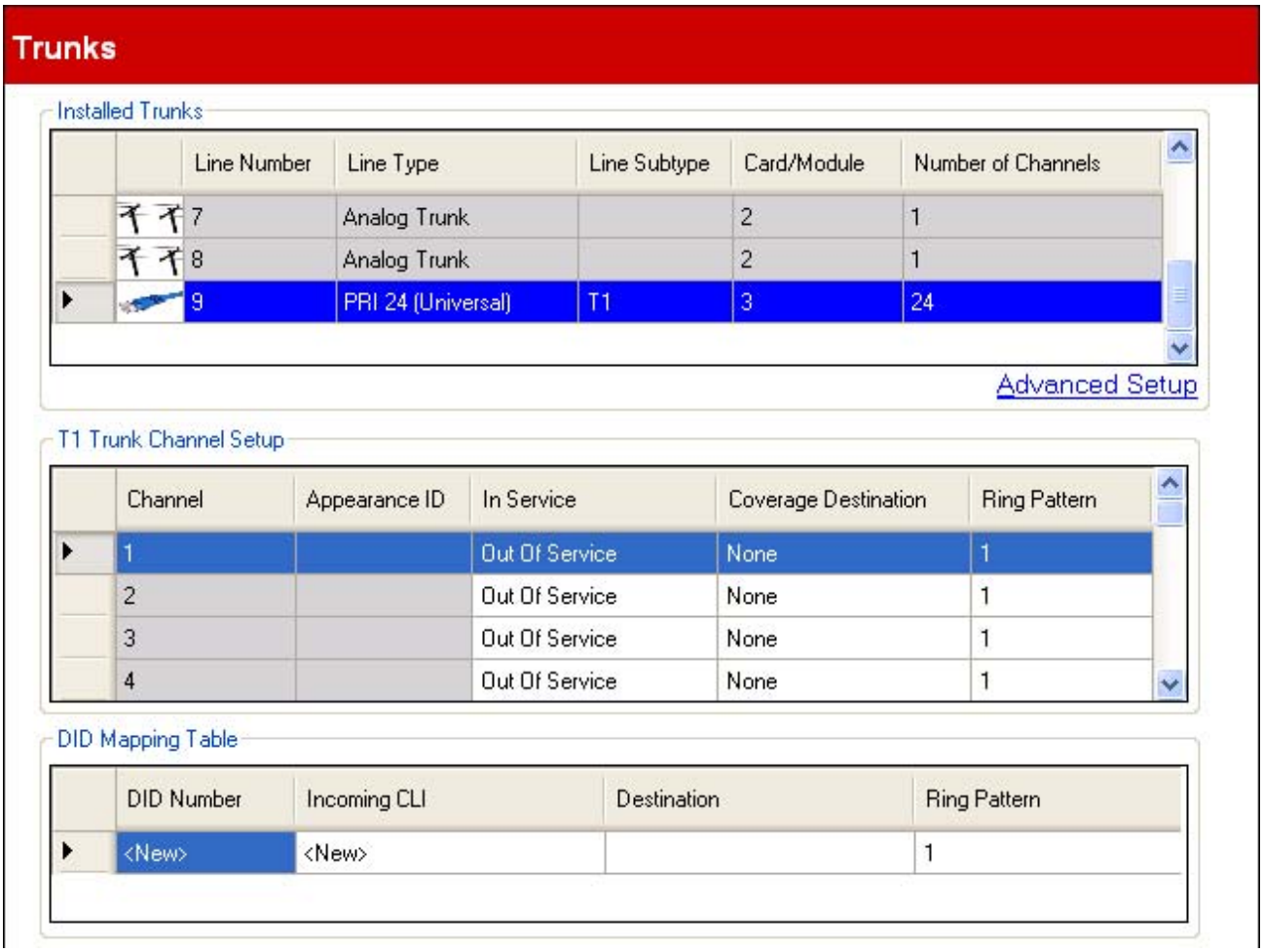
These settings are only available for a PRI trunks where the Provider has been set to AT&T.



- TNS (Transit Network Selector) Code:
  The pattern for the alternate long distance carrier. For example: The pattern 10XXX is added to this tab. If 10288 is dialed, 10 is removed and 288 is placed in the TNS and NSF information.
- Special
  - Short Codes *Default =Blank, Range = Up to 31 characters.*
    Dial Plan 53 code used to dial out. System short codes can be dialed by all IP Office users. However the system short code is ignored if the user dialing matches a user short code or user restriction short code. For example, short codes are grouped based on short code feature type such as all forwarding short codes together.
  - Number: The number translated from the short code i.e. decoded number in full
  - Special: Any conditions that apply. Select from drop down menu
  - Plan: The associated Dial Plan
- Call By Call:
  - Service: selects the type of service provided by the channel from *Call by Call*, *SDN* (inc GSDN), *MegaCom800*, *MegaComWats*, *Accunet*, *NLDS*, *I800*, *ETN*, *Private Line*, *AT&T Multiquest*. For other providers the service options are *None* or *No Service*.

2.13.3 T1 Trunks

If a trunk with the Line Subtype of *T1* is selected in the list of installed trunks, its settings are displayed below the list of installed trunks. Clicking on Advanced Setup 59 accesses a dialog of additional settings for the trunk and settings for the trunk's individual channels.



- T1 Trunk Channel Setup
  This table is used to set which trunk channels are available for use.
  - Channel: *For information only, not editable.*
  - Appearance ID: *Default = Auto-assigned, Range = 2 to 9 digits.*
    Used for configuring Line Appearances with button programming. The line appearance ID must be unique and not match any extension number.
  - In Service: *Default = Out of Service.*
    Selects whether the trunk channel is in use.
  - Coverage Destination: *Default = None.*
    If set to *None*, calls on the channel only alert on user extensions with line appearance buttons that match the channels Appearance ID. Alternatively a specific extension, hunt group, calling group or the auto attendant can be selected to also receive call alerting for incoming calls on the channel.
    - When the phone system is in night service mode, calls alert at the members of the Night Service 42 group.
  - Ring Pattern: *Default = 1*
    Selects the ring pattern that should be used for the call when alerting on a user extension.

Pattern	Ringing
1	1s ring, 2s off, ...
2	0.25s ring, 0.25s off, 0.25s ring, 0.25s off, 0.25s ring, 1.75s off, ...
3	0.4s ring, 0.8s off, ...
4	2s ring, 4s off, ...
5	2s ring, 2s off, ...
6	0.945s ring, 4.5s off, ...
7	0.25s ring, 0.24 off, 0.25 ring, 2.25 off, ...
8	1s ring, 3s off, ...

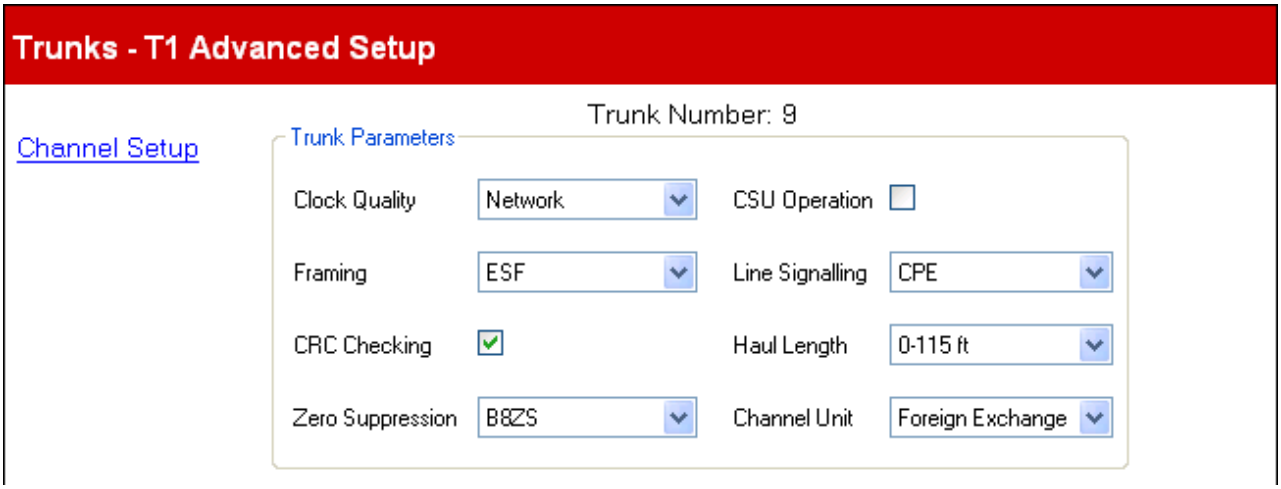
- DID Mapping Table
  This table is used to set the destination for incoming calls based on the DID and ICLID number information received with the call. This will override the Coverage Destination settings of the channel on which the call was received. Calls routing by DDI mapping is not affected by the phone system being put into the night service state.
  - DID Number
    If the incoming DID of a call on the T1 trunk matches the DID set here, it will be routed to this destination.
  - Incoming CLI
    If the incoming caller number on the T1 trunk matches the ICLID set here, it will be routed to this destination.
  - Destination
    When this field is selected, the drop down list allows selection of the extension or group to which calls matching the DID Number or Incoming CLI settings should be routed. The destination can also be set to *Auto Attendant*.
  - Ring Pattern: *Default = 1*
    Selects the ring pattern that should be used for calls routed via this mapping table entry.
  - Ring Pattern: *Default = 1*
    Selects the ring pattern that should be used for the call when alerting on a user extension.

Pattern	Ringing
1	1s ring, 2s off, ...
2	0.25s ring, 0.25s off, 0.25s ring, 0.25s off, 0.25s ring, 1.75s off, ...
3	0.4s ring, 0.8s off, ...
4	2s ring, 4s off, ...
5	2s ring, 2s off, ...
6	0.945s ring, 4.5s off, ...
7	0.25s ring, 0.24 off, 0.25 ring, 2.25 off, ...
8	1s ring, 3s off, ...

2.13.3.1 T1 Advanced Setup

Because some settings can conflict with, or nullify other settings, do not use this dialog except under direction of a trained Avaya technician or when directed to do so by support personnel.

This dialog allows setting of advanced T1 trunk settings that normally do not need to be changed. The Channel Setup 60 option give access to a dialog for configuring individual channels.



- Trunk Parameters
  - Clock Quality: *Default = Network*
    This option sets whether the IP Office should try to take its clock source for call synchronization and signalling from this line. Preference should always be given to using the clock source from a central office exchange if available by setting at least one exchange line to *Network*.
    - If multiple lines are set as *Network*, the order in which those lines are used is described in the IP Office Installation Manual. If additional lines are available, *Fallback* can be used to specify a clock source to use should the *Network* source not be available.
    - Lines from which the clock source should not be taken should be set as *Unsuitable*.

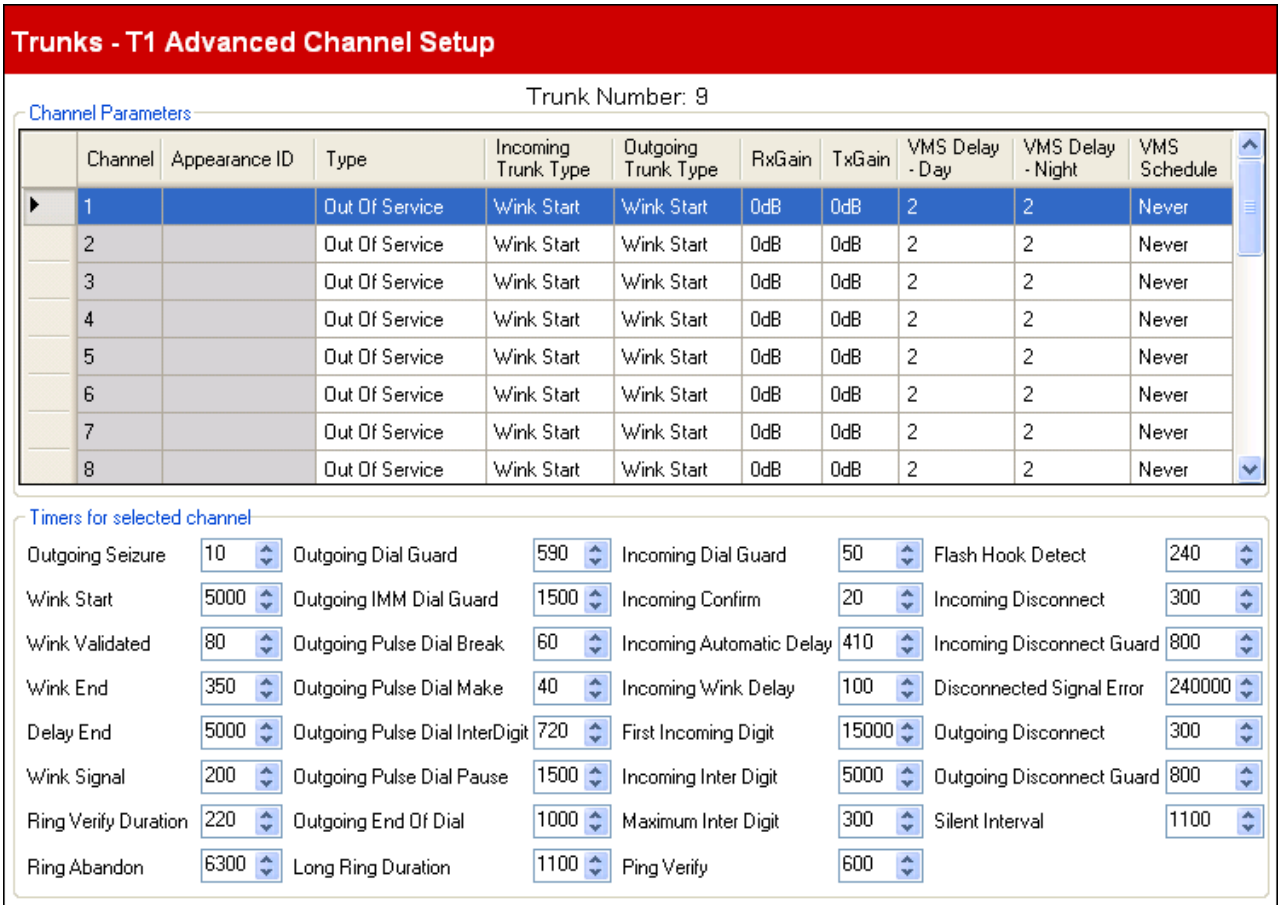
- If no clock source is available, the phone system uses its own internal 8KHz clock source.

- Framing: *Default = ESF*
  Selects the type of signal framing used (*ESF* or *D4*).
- CRC Checking: *Default = On*
  Turns CRC on or off.
- Zero Suppression: *Default = B8ZS*
  Selects the method of zero suppression used (*B8ZS* or *AMI ZCS*).
- CSU Operation:
  Tick this field to enable the T1 line to respond to loop-back requests from the line.
- Line Signaling: *Default = CPE*
  The field can be set to either *CPE* (Customer Premises Equipment) or *CO* (Central Office). This field should normally be left at its default of CPE. The setting CO is normally only used in lab back-to-back testing.
- Haul Length: *Default = 0-115 feet*
  Sets the line length to a specific distance.
- Channel Unit: Default = Foreign Exchange
  This field should be set to match the channel signaling equipment provided by the Central Office. The options are *Foreign Exchange*, *Special Access* or *Normal*.

2.13.3.2 T1 Advanced Channel Setup

Because some settings can conflict with, or nullify other settings, do not use this dialog except under direction of a trained Avaya technician or when directed to do so by support personnel.

This dialog allows the adjustment of settings for each channel of the T1 trunk.


Trunks - T1 Advanced Channel Setup
Trunk Number: 9
Channel Parameters
Channel
Appearance ID
Type
Incoming Trunk Type
Outgoing Trunk Type
RxGain
TxGain
VMS Delay - Day
VMS Delay - Night
VMS Schedule
1 Out Of Service Wink Start Wink Start 0dB 0dB 2 2 Never
2 Out Of Service Wink Start Wink Start 0dB 0dB 2 2 Never
3 Out Of Service Wink Start Wink Start 0dB 0dB 2 2 Never
4 Out Of Service Wink Start Wink Start 0dB 0dB 2 2 Never
5 Out Of Service Wink Start Wink Start 0dB 0dB 2 2 Never
6 Out Of Service Wink Start Wink Start 0dB 0dB 2 2 Never
7 Out Of Service Wink Start Wink Start 0dB 0dB 2 2 Never
8 Out Of Service Wink Start Wink Start 0dB 0dB 2 2 Never
Timers for selected channel
Outgoing Seizure 10
Wink Start 5000
Wink Validated 80
Wink End 350
Delay End 5000
Wink Signal 200
Ring Verify Duration 220
Ring Abandon 6300
Outgoing Dial Guard 590
Outgoing IMM Dial Guard 1500
Outgoing Pulse Dial Break 60
Outgoing Pulse Dial Make 40
Outgoing Pulse Dial InterDigit 720
Outgoing Pulse Dial Pause 1500
Outgoing End Of Dial 1000
Long Ring Duration 1100
Incoming Dial Guard 50
Incoming Confirm 20
Incoming Automatic Delay 410
Incoming Wink Delay 100
First Incoming Digit 15000
Incoming Inter Digit 5000
Maximum Inter Digit 300
Ping Verify 600
Flash Hook Detect 240
Incoming Disconnect 300
Incoming Disconnect Guard 800
Disconnected Signal Error 240000
Outgoing Disconnect 300
Outgoing Disconnect Guard 800
Silent Interval 1100

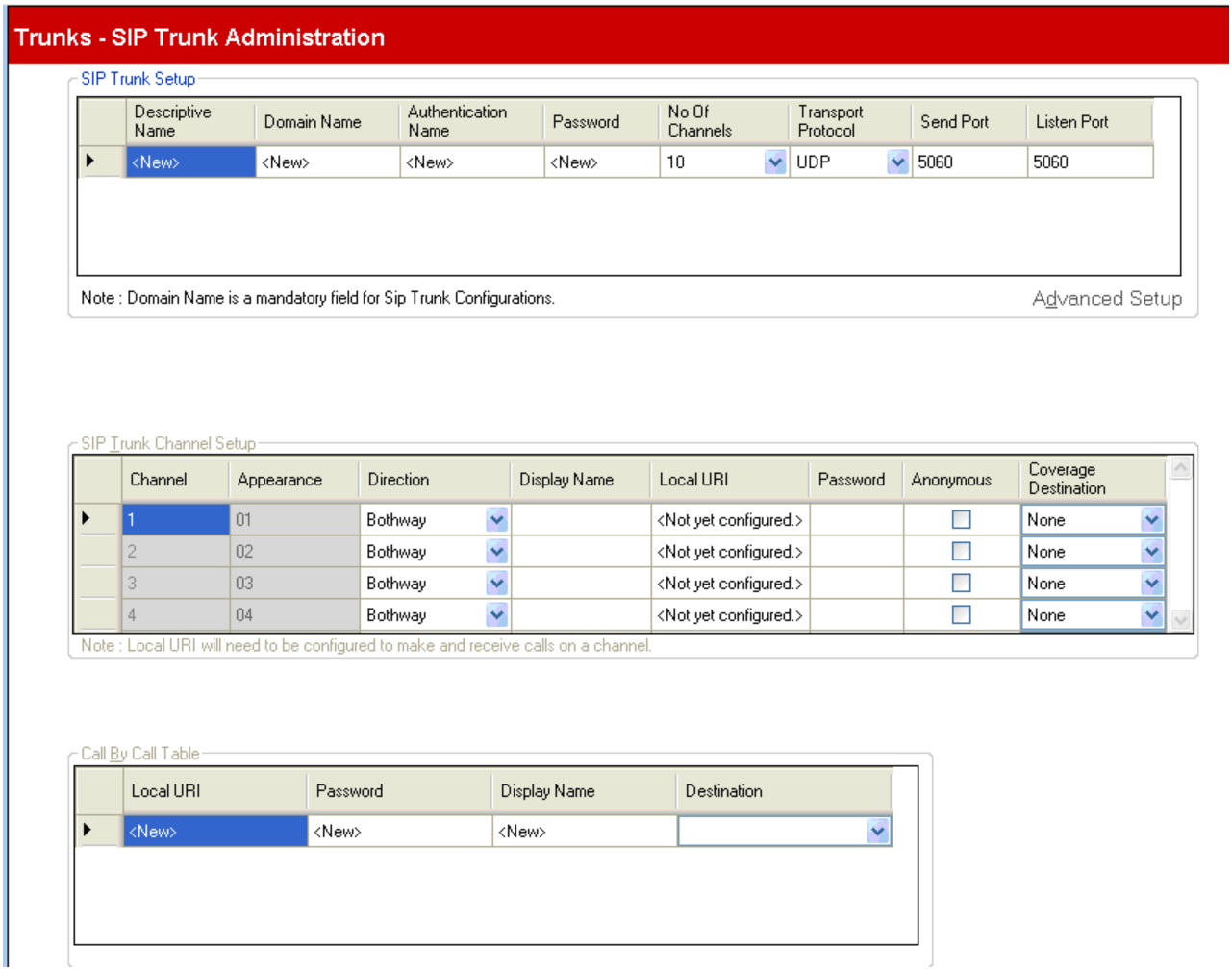
- Channel Parameters
  - Channel: *For information only, not editable.*
  - Appearance ID: *Default = Auto-assigned, Range = 2 to 9 digits.*
    Used for configuring Line Appearances with button programming. The line appearance ID must be unique and not match any extension number.

- Type: *Default = Out of Service*
  The T1 emulates the following connections (*Ground Start*, *Loop Start*, *E & M - TIE*, *E & M - DID*, *E & M Switched 56K*, *Direct Inward Dial*, *Clear Channel 64K* or *Out of Service*). Trunks set to *E & M - DID* will only accept incoming calls. If *E&M - TIE* is selected and the Outgoing Trunk Type is set to *Automatic*, no secondary dial tone is provided for outgoing calls on this channel.
- Dial Type: *Default = DTMF Dial*
  Select the dialing method required (*DTMF Dial* or *Pulse Dial*).
- Incoming Trunk Type: *Default = Wink-Start*
  Used for E&M types only. The handshake method for incoming calls (*Automatic*, *Immediate*, *Delay Dial* or *Wink-Start*).
- Outgoing Trunk Type: *Default = Wink-Start*
  Used for E&M types only. The handshake method for outgoing calls (*Automatic*, *Immediate*, *Delay Dial* or *Wink-Start*).
- Tx Gain: *Default = 0dB*
  The transmit gain in dB.
- Rx Gain: *Default = 0dB*
  The receive gain in dB.
- VMS Delay - Day: *Default = 2, Range = 0 to 6 (number of rings).*
  Set the number of rings before an unanswered call should be redirected to the voicemail system auto attendant.
- VMS Delay - Night: *Default = 2, Range = 0 to 6 (number of rings).*
  Sets the number of rings before an unanswered call should be redirected to the voicemail system auto attendant.
- VMS Schedule: *Default - Never*
  This option determines when unanswered calls should be redirected to the voicemail system. The delay for the redirection is set by the VMS Delay -Day and VMS Delay - Night values for the channel. The options are *Always*, *Day Only*, *Night Only* or *Never*.

- Timers for selected channel
  Only adjust these values under guidance from the line provider.

2.13.4 SIP Trunk Administration

This window is used to add SIP trunks to the phone system configuration.



Clicking on Advanced Setup [49] when an SIP Trunk line type is selected in the list and a domain name has been entered, accesses a dialog of additional settings.

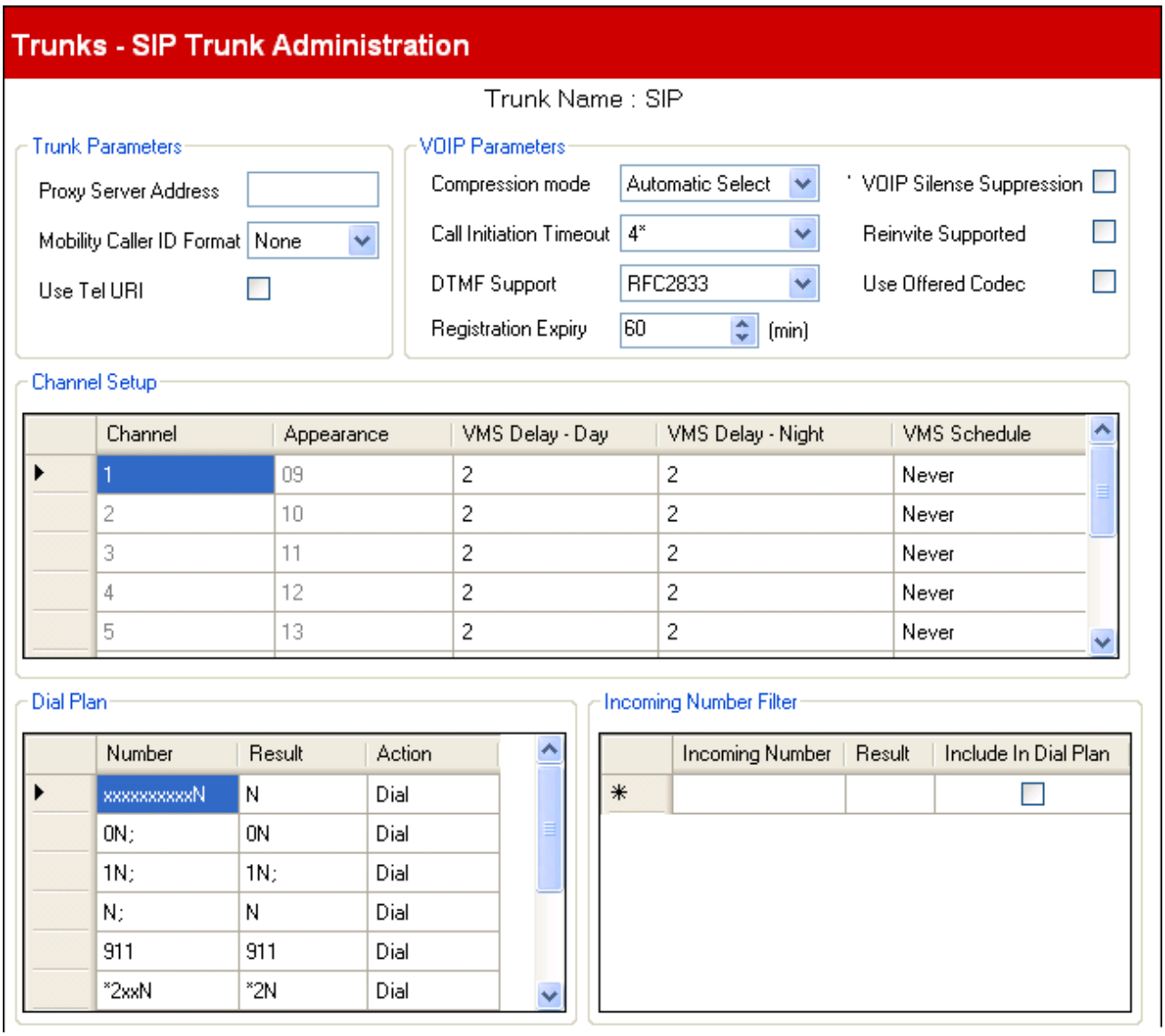
- SIP Trunk Setup:
  - Descriptive Name: The name of the trunk
  - Domain Name: *Default = Blank*
    Each SIP Trunk configuration has a unique ITSP Domain name needed by SIP end points in order to register with the IP Office. This is a string which may be directly resolved to an IP Address, or may require DNS lookup to resolve the domain name to the Service provider's address. If this field is left blank, registration is against the LAN IP address.
  - Authentication Name: *Default = Blank.*
    This value is provided by the SIP ITSP. Depending on the settings on the Local URI tab associated with the SIP call it may also be used as the user part of the SIP URI.
  - Password: *Default = Blank.*
    This value is provided by the SIP ITSP.
  - Number of Channels: *Default = 10*
    Number of trunk channels between 1 and 24
  - Transport Protocol: *Default = Both TCP & UDP.*
    Both TCP and UDP SIP end points are supported. This field can be used to restrict the IP Office to just TCP or UDP if required.
  - Send Port: *Default = 5060.*
    The port to use for TCP support.
  - Listen Port: *Default = 5060.*
    The port to use for UDP support.
- SIP Trunk Channel Setup:

- Channel:
  Set by the system. Shown for information only.
- Appearance:
  Appearance ID numbers can be assigned to each channel supported in order to allow that channel or line to be associated with a Line Appearance button on phones that support button programming.
- Direction: *Default = Both Directions*
  Sets the allowed direction of operation of the line (Incoming, Outgoing or Both Directions).
- Display Name: *Default = Use Authentication Name*
  This field sets the 'Name' value for SIP calls using this URI. The value can either be entered manually or the options *Use Authentication Name* or *Use Internal Data* selected.
- Local URI: The user part of the SIP URI. This specifies the contents of the “From” field when making a call (sending an INVITE)
- Password: Password needed for connections to data services such as the Internet.
- Anonymous: Checkbox allows anonymous Internet access.
- Coverage Destination: <<?>>

- Call by Call Table:
  - Local URI: The user part of the SIP URI.
  - Password: *Default = Blank.*
    This value is provided by the SIP ITSP.
  - Display Name:*Default = Use Authentication Name*
    This field sets the 'Name' value for SIP calls using this URI. The value can either be entered manually or the options *Use Authentication Name* or *Use Internal Data* selected.
  - Destination: Where incoming calls with matching digits should be routed. The drop-down list contains the extensions and groups on the IP Office system.
  - Ring Pattern: Sets the ring pattern used for external calls to the user

2.13.4.1 SIP Trunk Advanced

These settings are used for configuration of individual SIP channels and more advanced SIP trunk settings.



- Trunk Parameters
  - Proxy Server Address: In exceptional circumstances, the IP Address of the proxy server may be explicitly identified as either a different IP Address, or a different domain address resolvable by DNS
  - Mobility Caller ID Format: This option corresponds to the standard "draft-ietf-sip-privacy-04".
  - Use Tel URI:*Default = Off.*
    Use Tel URI format (for example TEL: +1-425-555-4567) rather than SIP URI format (for example name@example.com). This affects the From field of outgoing calls. The To field for outgoing calls will always use the format specified by the short codes used for outgoing call routing
- VOIP Parameters
  - Compression Mode: *Default = Automatic Selection*
    This defines the type of compression which is to be used for calls on this line.
  - Call Initiation Timeout: determine how long to wait for successful connection before treating the line as busy and following ARS alternate routing
  - DTMF Support: selects Dual Tone Multi Frequency mode
  - Registration Expiry:
    This setting defines how often registration with the SIP ITSP is required following any previous registration.
  - VOIP Silence Suppression: *Default = Off*
    When selected, this option will detect periods of silence on any call over the line and will not send any data during those silent periods. This feature is not used on IP lines using *G711* between IP Office systems.
  - Reinvite Supported: Check box to allow Reinvite
  - Use Offered Codec: audio codec format

Channel Setup

- Channel: Channel number, cannot be edited
- Appearance: Each channel can be accessed through pressing a Line Appearance to make calls, Answer calls or Conference. Lamps on the button reflect whether the channel is in use. On a small system, with just 4 Analog trunks and no T1 trunks installed, the SIP Channels would be numbered starting from Line Appearance “05”. On a larger system with 8 Analog trunks and a T1 trunk with 24 channels, the SIP Channels would start at Line Appearance “33”.
  The maximum channel number allowed on the system is “64”. You can configure a Line Appearance on any button (with LEDs) on any phone, and you can also configure the Automatic Line Selection which will choose the default line you would select when you go off-hook. A SIP Trunk “Line Appearance” appears to have the same properties as an Analog Trunk line Appearance.
- VMS Delay - Day: *Default = 2, Range = 0 to 6 (number of rings).*
  Set the number of rings before an unanswered call should be redirected to the voicemail system auto attendant.
- VMS Delay - Night: *Default = 2, Range = 0 to 6 (number of rings).*
  Sets the number of rings before an unanswered call should be redirected to the voicemail system auto attendant.
- VMS Schedule: *Default - Never*
  This option determines when unanswered calls should be redirected to the voicemail system. The delay for the redirection is set by the VMS Delay -Day and VMS Delay - Night values for the channel. The options are *Always*, *Day Only*, *Night Only* or *Never*.

Service only.

Dial Plan

Number: Dialled number to be converted

Result: The number that will be output to the line as the result of the dial plan

Action:

Incoming Number Filter

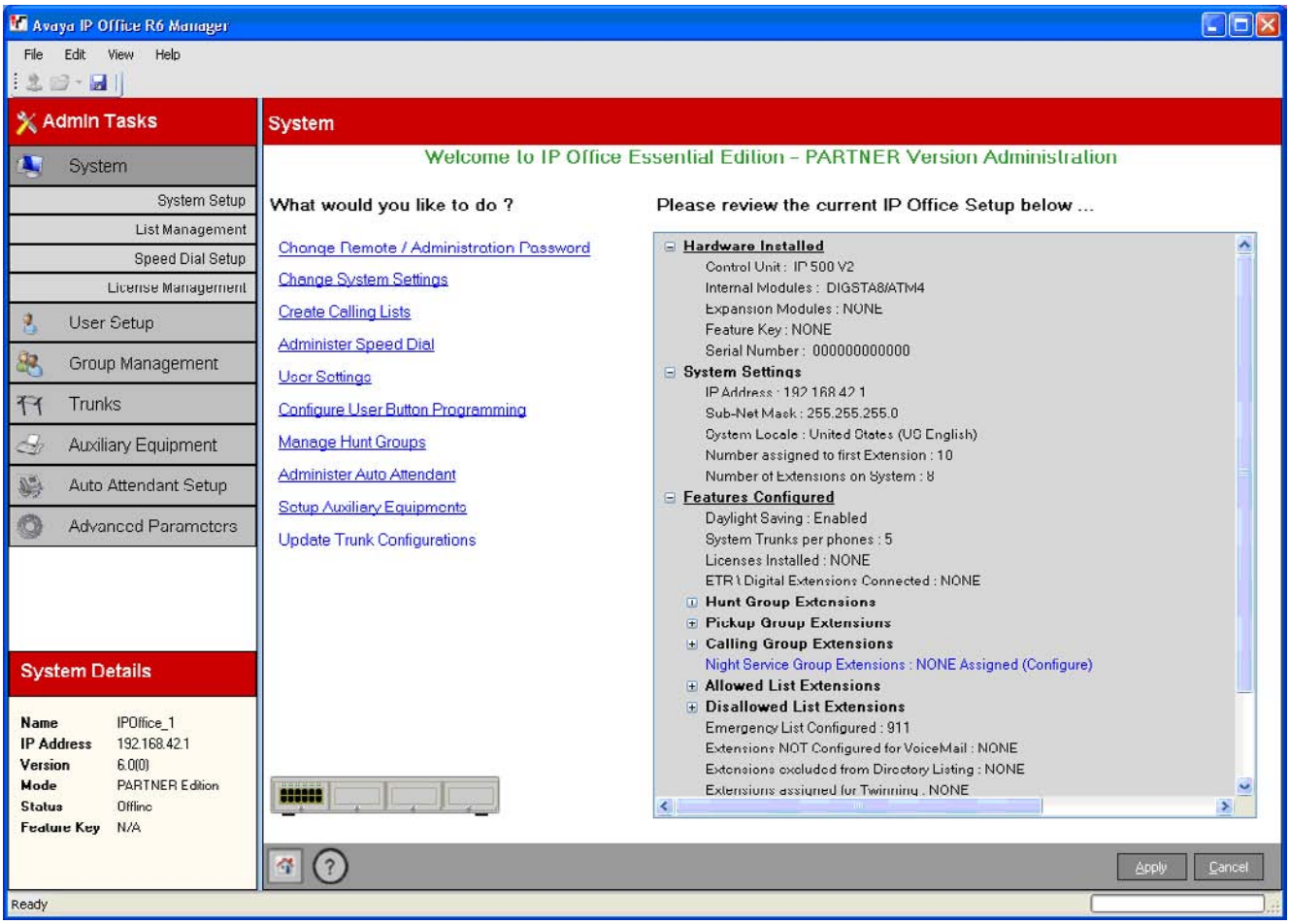
Incoming Number: The default Incoming Number filter simply converts international USA numbers into local 10digit numbers. However, it is also useful for mapping PC calls (from skype, google, windows etc) into a diallable number plan. One nice way to use this is to map PC calls into numbers in area code “555”

Result:

Include in Dial Plan: When you select “include in dial plan”, the Partner Edition will automatically substitute the number you dial for outgoing calls as well.

2.14 Additional Administration Tasks

This section describes administration tasks that can only be accessed via the *Admin Tasks* pane of the three pane Administration window shown below



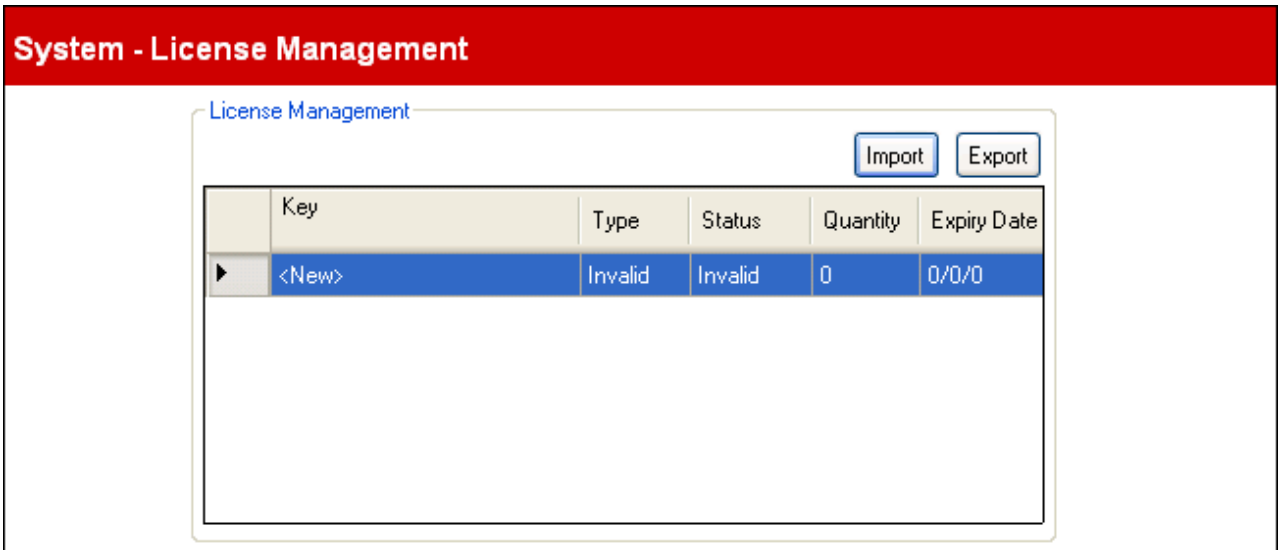
This view is obtained by de selecting menu command View | Hide Admin Tasks

Many advanced administration tasks are carried out through selections from the main menu toolbar. See Menu Bar Commands 78.

2.14.1 System-License Management

This dialog is reached by selecting System | License Management from the Admin Tasks 66 pane. It is used to enter licenses required for additional telephone system features. For example licenses are used to enable additional voicemail ports or the twinning feature.

Each license is a unique 32-character string based on the feature being licensed and the serial number of the SD card plugged into the system control unit. It is recommended that you use the Import control to import licenses. Alternatively the license keys can be cut and pasted into the Key field. Entering licenses manually is liable to errors caused by mis keying of the correct 32-character string.



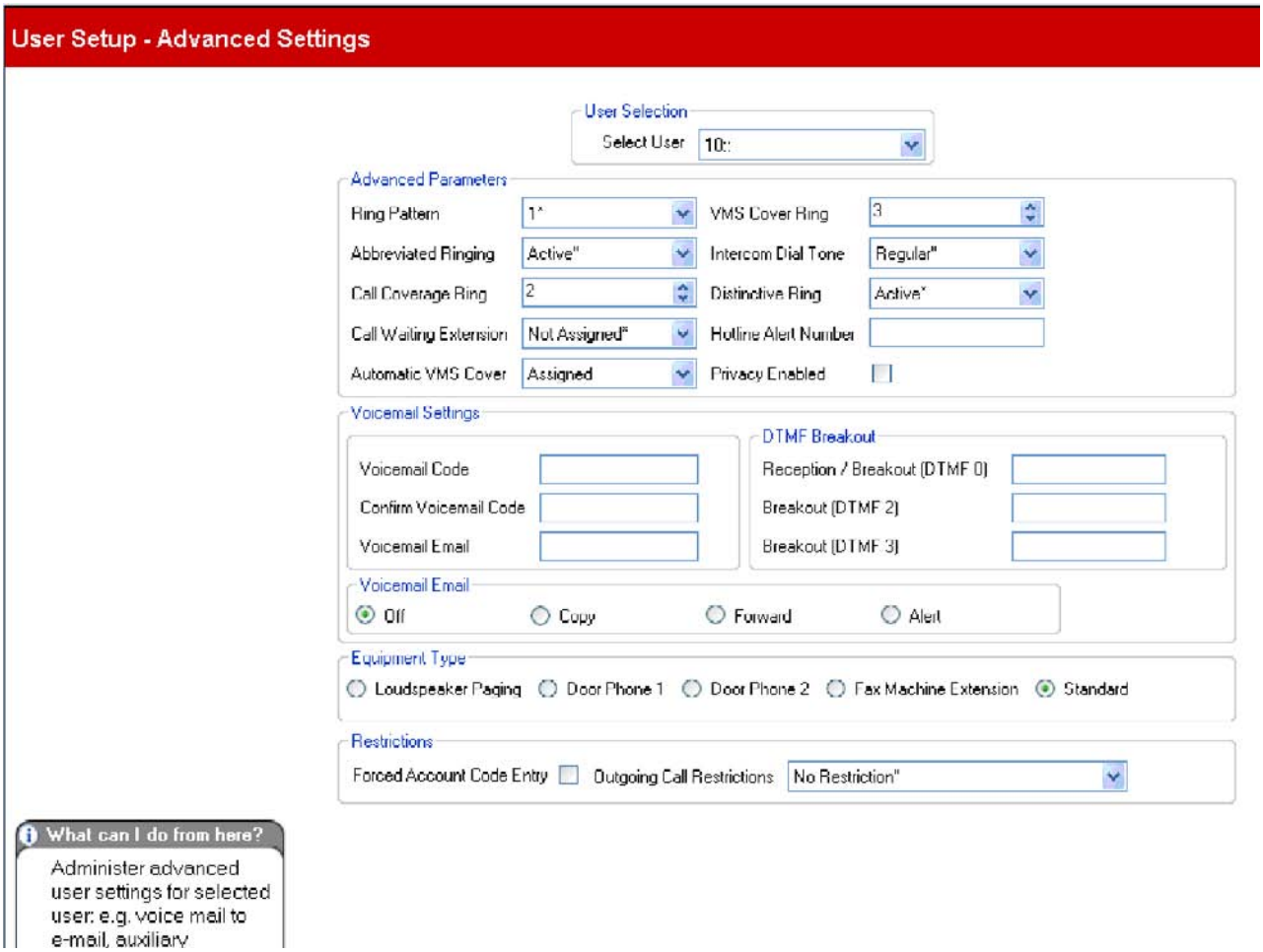
- Import
  Import licenses from a CSV file. Each line of the file should contain a license name and the 32-character license key, each separated by a comma.
- Export
  Export the licenses to a CSV file. (Only if exportable licenses are present on the system)

For each license key entered, the following information is displayed:

- Key
  This is the 32-character license string.
- Type: *Information field, not editable.*
  If the Key is recognized, the name of the feature it licenses is shown in this field. If Invalid is displayed it indicates that the Key has not been correctly entered.
- Status:
  This field shows the status of the license.
  - *Unknown* is shown for newly entered licenses until the configuration is sent to the phone system and then reloaded again.
  - *Valid* is shown if the license key matches the SD card serial number.
  - *Invalid* is shown if the license key does not match the SD card 8 serial number.
  - *Dormant* is shown if the license key is valid but is conditional on another license that is not present.
  - *Obsolete* is shown if the license key is valid but the license is no longer used by the version of software installed in the phone system.
- Quantity: *Information field, not editable.*
  This field indicates how many items are enabled by the license. The meaning of this will vary depending on the feature being licensed.
- Expiry Date: *Information field, not editable.*
  Some licenses have an expiry date. This field will indicate that date.

2.14.2 User-Advanced Settings

This dialog is reached by selecting User Setup | Advanced Settings from the Admin Tasks 66 pane.



- User Selection
  - Select User
    This drop down list is used to select the user whose settings are displayed and being edited.
- Advanced Parameters
  - Ring Pattern: *Default = 1*
    Selects the ring pattern that should be used for the call when alerting on a user extension.

Pattern	Ringing
1	1s ring, 2s off, ...
2	0.25s ring, 0.25s off, 0.25s ring, 0.25s off, 0.25s ring, 1.75s off, ...
3	0.4s ring, 0.8s off, ...
4	2s ring, 4s off, ...
5	2s ring, 2s off, ...
6	0.945s ring, 4.5s off, ...
7	0.25s ring, 0.24 off, 0.25 ring, 2.25 off, ...
8	1s ring, 3s off, ...

  - Abbreviated Ringing: *Default = Active*
    When active, on an ETR or 1400 Series extension, if a user is already connected to a call, any additional call will give just a single quiet ring. Note that for additional calls alerting on line appearance buttons, the *Immediate*, *Delayed Ring* or *No Ring* settings of the button still apply.
  - Call Coverage Ring: *Default = 2 (10 seconds)*
    Programmable buttons set to Call Coverage can be used to switch call coverage on or off for a user. When on, calls that ring unanswered for this number of rings are redirected to alert on a covering extension. Ensure that this setting is set lower than the users VMS Cover Ring if using Automatic VMS Cover.
  - Call Waiting Extension: *Default = Not Assigned*
    If Assigned, on an analog extension, when the user is on a call, an additional call will cause a tone to be heard as part of the existing call.

- Automatic VMS Cover: *Default = Not Assigned*
  If *Assigned*, voicemail is used to answer calls to the user that have rung for the VMS Cover Ring time.
- VMS Cover Ring: *Default = 3 (15 seconds), Range = 1 to 9.*
  If Automatic VMS Cover is assigned, this value sets how long a call alerts the user extension before going to voicemail.
- Intercom Dial Tone: *Default = Regular*
  This setting allows selection of which dial tone is used for intercom (internal) calls. *Regular* matches the dial tone used by Avaya Partner phone systems. *Machine* matches the dial tone used by Avaya Essential Edition - PARTNER® Version phone systems.
- Distinctive Ringing: *Default = Active*
  If active, the phone will use, if supported, different ring patterns to indicate internal, external and recall calls.
- Hotline Alert Number: *Default = Blank*
  If a number is entered here, when the extension goes off-hook by simply lifting the handset or pressing a speaker button (rather than first selecting a line or intercom button), this number is called.
- Privacy Enabled: *Default = Off*
  If off, when connected to an external call on a particular line, other users with a line appearance for that line are able to join that call. If on, other user cannot join calls. A user can switch privacy on/off using a programmable button set to the Privacy 37 feature.

- Voicemail Settings
  - Voicemail Code: *Default = Blank, Range = 0 (no code) to 15 digits.*
    A code (1-15 digits) used to validate access to the mailbox.
    - The mailbox user can change the code by dialing *04 after having entered the mailbox.
  - Voicemail Email: Enter the user's email address.
- DTMF Breakout: *(dual tone multi frequency)*
  Essential Edition - PARTNER® Version allows system defaults to be set. These are then applied to all user mailboxes unless the users own settings differ. <<<how>>>Vince
- Reception / Breakout (DTMF 0)
  The number to which a caller is transferred if they press *0* while listening to the mailbox greeting rather than leaving a message (**0* on embedded voicemail).
  - For systems set to Intuity emulation mode, the mailbox user can also access this option when collecting their messages by dialing **0*.
  - If the mailbox has been reached through a call flow containing a Leave Mail action, the option provided when *0* is pressed are:
    - For IP Office mode, the call follows the Leave Mail action's *Failure* or *Success* results connections depending on whether the caller pressed *0* before or after the record tone.
    - For Intuity mode, pressing *0* always follows the Reception / Breakout (DTMF 0) setting.
  - Breakout (DTMF 2)
    The number to which a caller is transferred if they press 2 while listening to the mailbox greeting rather than leaving a message (**2* on embedded voicemail).
  - Breakout (DTMF 3)
    The number to which a caller is transferred if they press *3* while listening to the mailbox greeting rather than leaving a message (**3* on embedded voicemail).
- Voicemail Email Radio Buttons: Enable voicemail user to set telephone system response to voicemail for that user
  - Off - Don't send email alerts for new messages.
  - Copy - Send a copy of each new message received to the user's email address
  - Forward - Forward each new message received to the user's email address, deleting the message from their mailbox
  - Alert - Send an email alert for each new message received
- Equipment Type: *Default = Standard*
  - Loudspeaker Paging
    Select this option for an extension connected to a paging amplifier.
  - Door Phone 1 / Door Phone 2
    Select this option for an extension connected to a door phone device. The phone system can support two such devices. The setting is linked to the Assign Extension setting on the Door Phone 1 45 and Door Phone 2 45 dialogs which set which users are alerted when a the door phone extension goes off hook.
  - Fax Machine Extension
    Select this option for an extension connected to a fax machine.

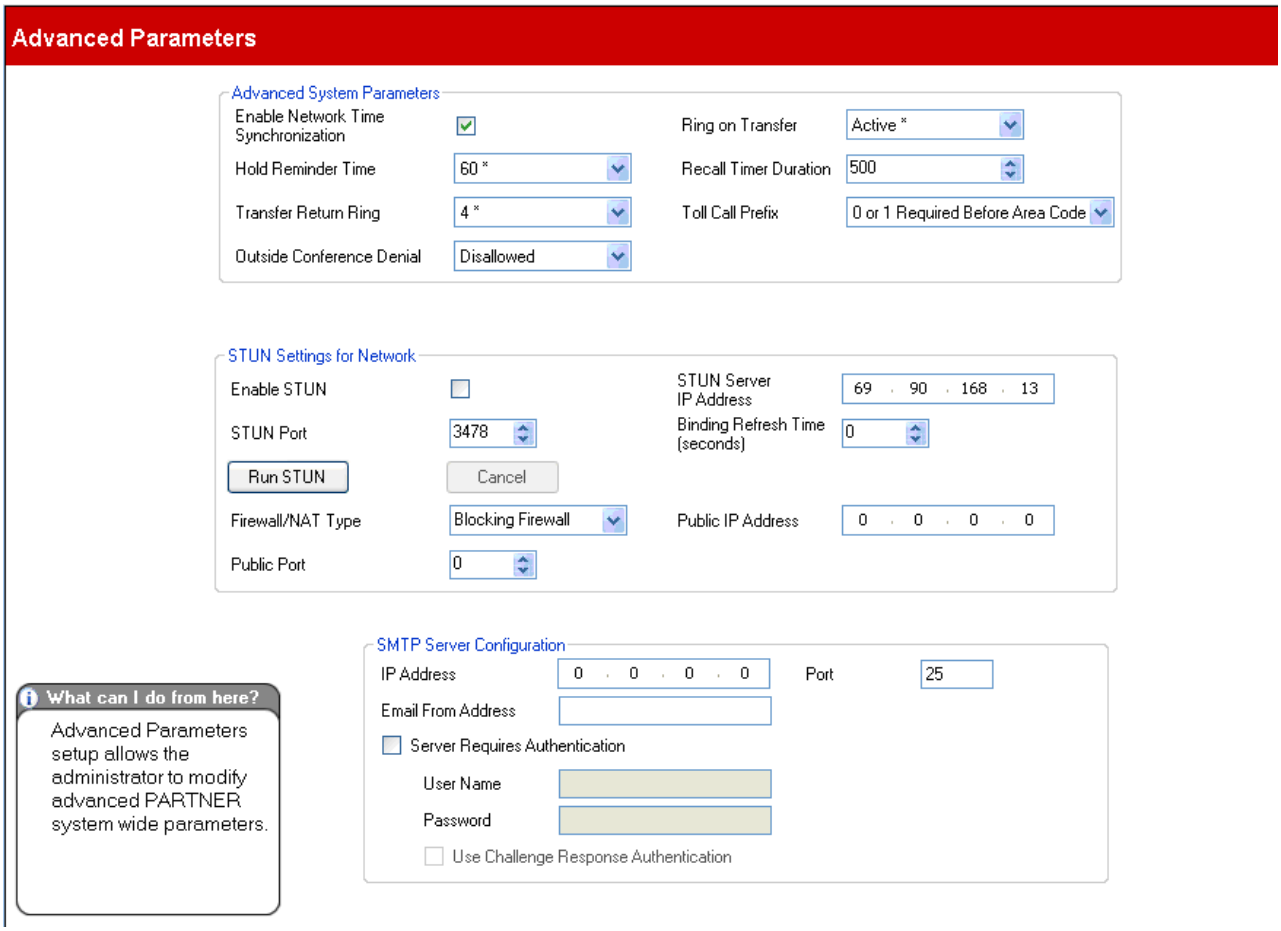
- Standard
  Select this option for a standard telephone extension.

- Restrictions
  - Forced Account Code Entry: *Default = Off*
    If selected, the user is required to enter an account code from the Account Code Entries 30 list when making an external call. This can only be overridden by use of the System Password 24 to make a call.
  - Outgoing Call Restrictions: *Default = No Restriction*
    This field sets the type of outgoing external calls that the user can normally make. Any restrictions applied do not apply to numbers in the Emergency Number List 29 and to numbers in any Allowed Lists 28 of which the user is a member
    - *No Restrictions*
      The user can make outgoing external calls. Note that the Allowed Lists and Disallowed Lists of which the user is a member still apply.
    - *Inside only*
      The user can only make internal calls.
    - *Local only*
      The user can only make outgoing external calls to numbers matching local numbers.

2.14.3 Advanced Parameters

This dialog is reached by selecting Advanced Parameters from the Admin Tasks 66 pane

Displays a number of settings which normally do not need to be adjusted unless adding support for SIP trunks.



- Advanced System Parameters
  - Enable Network Time Synchronization: *Default = On.*
    When selected, the phone system will use the time included in the ICLID on incoming calls as its system time.
  - Hold Reminder Time: *Default = 60 seconds, Range = 0 (Off) to 180 seconds.*
    This setting controls how long calls remain on hold before recalling to the user who held the call. Note that the recall only occurs if the user has no other connected call. Recalled calls will continue ringing and do not follow forwards or go to voicemail.

- Transfer Return Ring: *Default = 4 (20 seconds), Range 1 to 180 seconds.*
  Sets the delay after which any call transferred by the user, that remains unanswered, should return to the user. A return call will continue ringing and does not follow any forwards or go to voicemail. Transfer return will occur if the user has an available call appearance button. Transfer return is not applied if the transfer is to a hunt group that has queuing enabled.
- Outside Conference Denial: *Default = Allowed*
- Ring on Transfer: *Default = Active*
  If selected, callers being transferred hear ringing during the transfer process. If not selected, the caller will hear music on hold.
- Recall Timer Duration: *Default = 500, Range = 25 to 800 milliseconds.*
  This is the flash pulse width used for analog trunks and T1 trunks.
- Toll Call Prefix: *Default = 0 or 1 Required Before Area Code*
  Allows selection between *0 or 1 Required Before Area Code* or *Area Code and Number Only*.

- STUN Settings for Network
  These settings are used if SIP trunks are added to the phone system's configuration using the SIP Trunk Administration 62 dialog. These settings are necessary to allow SIP connections from the network on which the phone system is attached to reach the public network on which the SIP provider is located.
  - The following fields can be completed either manually or the phone system can attempt to automatically discover the appropriate values. To complete the fields automatically, only the STUN Server IP Address is required. STUN operation is then tested by clicking Run STUN. If successful the remaining fields are filled with the results.
  - STUN Server IP Address: *Default = 69.90.168.13*
    This is the IP address of the SIP STUN server. The phone system will send basic SIP messages to this destination and from data inserted into the replies can try to determine the type ITSP NAT changes being applied by any firewall between it and the ITSP.
  - STUN Port: *Default = 3478*
    Defines the port to which STUN requests are sent if STUN is used.
  - Firewall/NAT Type: *Default = Unknown*
    The settings here reflect different types of network firewalls.
    - *Blocking Firewall*
      ??????????????????
    - *Symmetric Firewall*
      SIP packets are unchanged but ports need to be opened and kept open with keep-alives. If this type of NAT is detected or manually selected, a warning 'Communication is not possible unless the STUN server is supported on same IP address as the ITSP will be displayed as part of the manager validation.
    - *Open Internet*
      No action required. If this mode is selected, STUN lookups are not performed.
    - *Symmetric NAT*
      A symmetric NAT is one where all requests from the same internal IP address and port, to a specific destination IP address and port, are mapped to the same external IP address and port. If the same host sends a packet with the same source address and port, but to a different destination, a different mapping is used. Furthermore, only the external host that receives a packet can send a UDP packet back to the internal host. SIP Packets need to be mapped but STUN will not provide the correct information unless the IP address on the STUN server is the same as the ITSP Host. If this type of NAT/Firewall is detected or manually selected, a warning 'Communication is not possible unless the STUN server is supported on same IP address as the ITSP' will be displayed as part of the manager validation.
    - *Full Cone NAT*
      A full cone NAT is one where all requests from the same internal IP address and port are mapped to the same external IP address and port. Furthermore, any external host can send a packet to the internal host, by sending a packet to the mapped external address. SIP packets need to be mapped to NAT address and Port; any Host in the internet can call in on the open port, that is the local info in the SDP will apply to multiple ITSP Hosts.
    - *Restricted Cone NAT*
      A restricted cone NAT is one where all requests from the same internal IP address and port are mapped to the same external IP address and port. Unlike a full cone NAT, an external host (with IP address X) can send a packet to the internal host only if the internal host had previously sent a packet to IP address X. SIP packets needs to be mapped. Responses from hosts are restricted to those that a packet has been sent to. So if multiple ITSP hosts are to be supported, a keep alive will need to be sent to each host. If this type of NAT/Firewall is detected or manually selected, no warning will be displayed for this type of NAT.

- *Port Restricted Cone NAT*
  A port restricted cone NAT is like a restricted cone NAT, but the restriction includes port numbers. Specifically, an external host can send a packet, with source IP address X and source port P, to the internal host only if the internal host had previously sent a packet to IP address X and port P. SIP packets needs to be mapped. Keep-alives must be sent to all ports that will be the source of a packet for each ITSP host IP address. If this type of NAT/Firewall is detected or manually selected, no warning will be displayed for this type of NAT. However, some Port Restricted have been found to be more symmetric in behavior, creating a separate binding for each opened Port, if this is the case the manager will display NATs a warning 'Communication is not possible unless the STUN server is supported on same IP address as the ITSP' as part of the manager validation.

- *Unknown*
  Use this setting if the other settings are unsuitable

- *Static Port Block*
  Use the RTP port range 49152 to 53246.

- Binding Refresh Time (seconds): *Default = 0 (Never), Range = 0 to 3600 seconds.*
  Having established which TCP/UDP port number to use, either through automatic or manual configuration, the phone system can send recurring 'SIP Options requests' to the remote proxy terminating the trunk. Those requests will keep the port open through the firewall. Requests are sent every x seconds as configured by this field. If a binding refresh time has not been set you may experience problems receiving inbound SIP calls as they are unable to get through the Firewall. In these circumstances make sure that this value has been configured.

- Public IP Address: *Default = 0.0.0.0*
  This value is either entered manually or discovered by the Run STUN process. If no address is set, the phone system IP address is used.

- Public Port: *Default = 0*
  This value is either entered manually or discovered by the Run STUN process.

- Run STUN
  This button tests STUN operation between the phone system and the STUN Server IP Address set above. If successful the results are used to automatically fill the remaining fields with the discovered values. Before using Run STUN the SIP trunk must be configured.

- SMTP Server Configuration
  Essential Edition - PARTNER® Version can communicate with an SMTP email server. Using SMTP requires details of a valid SMTP email account user name and password and server address. If SMTP email alarms are configured but for some reason the IP Office cannot connect with the SMTP server, only the last 10 alarms are stored for sending when connection is successful.
  - IP Address: *Default = 0.0.0.0*
    This field sets the IP address of the SMTP server being used to forward SNMP alarms sent by email.

  - Port: *Default = 25, Range = 0 to 65534.*
    This field set the destination port on the SMTP server.

  - Email From Address: *Default = Blank*
    This field set the sender address to be used with mailed alarms. Depending of the authentication requirements of the SMTP server this may need to be a valid email address hosted by that server. Otherwise the SMTP email server may need to be configured to support SMTP relay.

  - Server Requires Authentication: *Default = On*
    This field should be selected if the SMTP server being used requires authentication to allow the sending of emails. When selected, the User Name and Password fields become available.

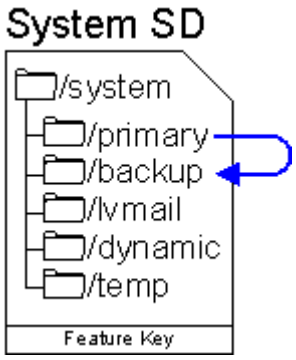
  - User Name: *Default = Blank*
    This field sets the user name to be used for SMTP server authentication.

  - Password: *Default = Blank*
    This field sets the password to be used for SMTP server authentication

  - Use Challenge Response Authentication: *Default = Off.*
    This field should be selected if the SMTP uses CRAM-MD5.

2.14.4 System Backup

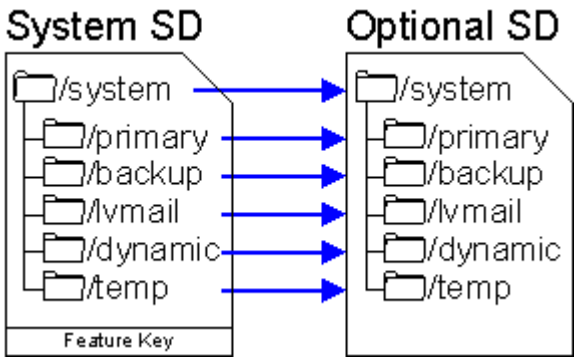
The Essential Edition - PARTNER® Version system is backed up automatically close to midnight each day when the contents of the primary directory on the SD card are copied to the backup folder on that same SD card. Any files in the backup folder with the same name are overwritten.



However; the automatic backup procedure only backs up operational files, not voicemail records

You can use Manager to fully backup your system at any time.

Insert an SD card in the Optional SD slot in the rear of the control unit and use Embedded 92 file management facility File | Advanced | Embedded File Management to suitably format the card and then copy all folders from the System SD Card to the Optional SD card.



Note: Except during maintenance the System SD slot should contain an Avaya SD card at all times. The files on that card are used when the system is started and the Feature Key serial number, only present on Avaya cards, is used for the licensing of IP Office features.

2.14.5 Changing Components

Base cards and external expansions modules must only be removed and added to an Essential Edition - PARTNER® Version system when that system is switched off.

In the sections below, the term component can refer to a card fitted into the control unit or an external expansion module.

Note that for extension ports, by default both an extension entry and a user entry will exist in the Essential Edition - PARTNER® Version configuration. Extension entries can be deleted without deleting the corresponding user entry. This allows retention of the user settings and association of the user with a different extension by changing the extensions Base Extension number to match the user's Extension ID.

Like for Like Replacement

If replacing with a component of the same type no configuration changes are necessary.

1. Switch off the Essential Edition - PARTNER® Version system.
2. Remove the card or external expansion module. Note the card slot or expansion port used as the replacement must be installed in the same position.
3. Install the replacement using the appropriate process for the type of component (Fitting IP Office 500 cards).
4. Restart the IP Office system.

Higher Capacity Replacement

If replacing with a component of the same type but higher capacity, when restarted the IP Office will automatically create configuration entries for the new trunks or extensions/users.

1. Switch off the Essential Edition - PARTNER® Version system..

2. Remove the card or external expansion module. Note the card slot or expansion port used as the replacement must be installed in the same position.
3. Install the replacement using the appropriate process for the type of component (Fitting IP Office 500 cards).
4. Restart the IP Office system.
5. Use Manager 7 to configure the new trunks or extensions/users.

Lower Capacity Replacement

If replacing with a component of the same type but lower capacity, after restarting the IP Office the configuration will need to be edited to remove redundant entries.

1. Switch off the Essential Edition - PARTNER® Version system..
2. Remove the card or external expansion module. Note the card slot or expansion port used as the replacement must be installed in the same position.
3. Install the replacement using the appropriate process for the type of component (Fitting IP Office 500 cards).
4. Restart the IP Office system.
5. Use Manager to delete the trunks or extensions/users in the configuration that are no longer supported by the component installed.

Adding a New Component

If adding a new component to an available slot or port, when restarted the IP Office will automatically create configuration entries for the new trunks or extensions/users.

1. Switch off the Essential Edition - PARTNER® Version system..
2. Install the replacement using the appropriate process for the type of component (Fitting IP Office 500 cards).
3. Restart the IP Office system.
4. Use Manager to configure the new trunks or extensions/users.

Permanent Removal

If permanently removing the component, the configuration will need to be edited to remove redundant trunk or extension/user entries.

1. Switch off the Essential Edition - PARTNER® Version system.
2. Remove the card or external expansion module.
3. Restart the IP Office system.
4. Use Manager to delete the trunks or extensions/users in the configuration that relate to the component removed.
5. In the Control Unit section of the configuration, delete the entry for the component that is no longer present in the system.

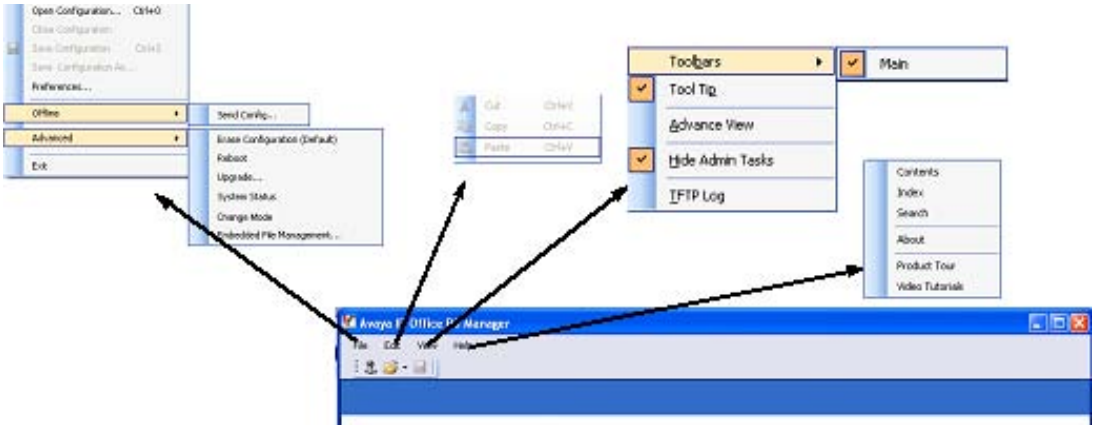
Replacement of a Different Type

If replacing a component with one of a different type, the process should be divided into two stages. First remove the existing component using the Permanent Removal process above and adjust the configuration and reboot. Then install the new component using the Adding a New Component process above.

Chapter 3.
Main Menu Commands

3. Main Menu Commands

This section describes administration actions available from the main drop down menus



Note: The Edit and Help menus have standard Windows behavior

The commands available through the Manager menu bar, change according to the mode in which Manager is running. Commands may also be grayed out if not useable. The following sections outline the functions of each command. The Edit and Help menus are not included.

File Menu		View Menu
Open Configuration... 102 Close Configuration 79 Save Configuration 79 Save Configuration As... 79 Preferences 80 Offline - Create New Config 84 - Open File 85 - Send Config... - Receive Config... Advanced - Erase Configuration (Default) 89 - Reboot 89 - System Shutdown... - Upgrade.. 90 - Change Mode...	- Embedded File Management 92 - Format IP Office SD Card 94 - IP Office A-Law - IP Office U-Law - IP Office Partner Edition - Recreate IP Office SD Card 94 - IP Office A-Law - IP Office U-Law - IP Office Partner Edition - Browse... - Memory Card Command 94 - Shutdown... - Start Up... - System Status 95 - Exit 96	Toolbars 96 Tool Tip 96 Advance View 97 Hide Admin Tasks 97 TFTP Log 97

3.1 File Menu

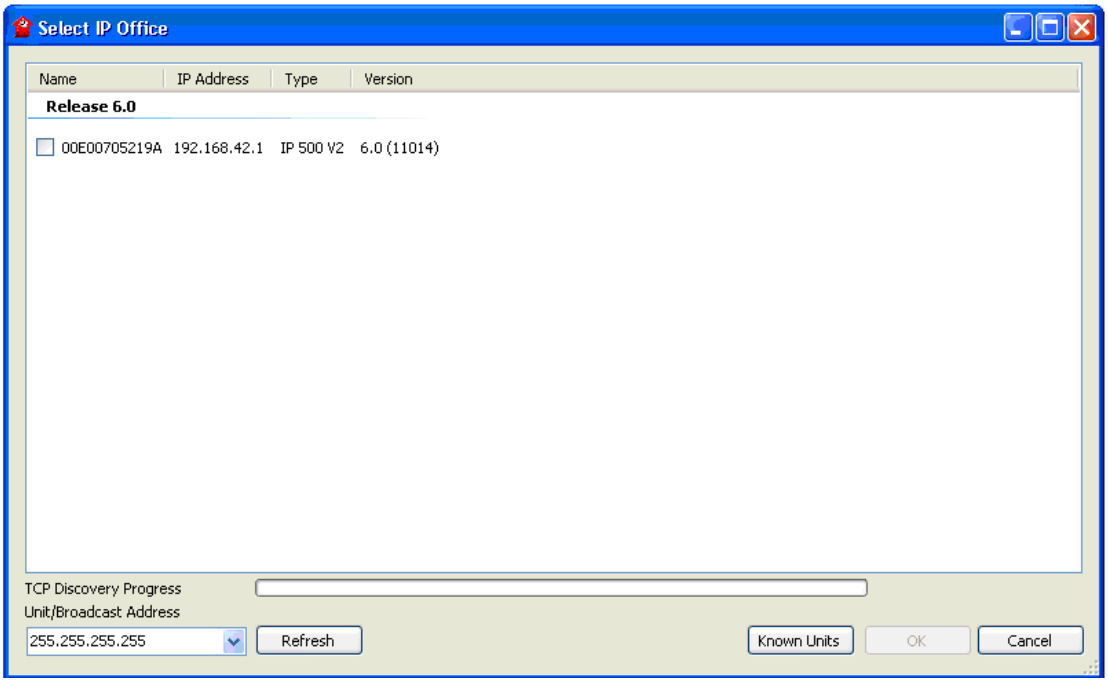
The File menu contains manager configuration options and many management options that are not available through the Manager GUIs.

3.1.1 Open Configuration

This menu command is only available when Manager is not connected to an Essential Edition - PARTNER® Version system.

This command displays the Select IP Office dialog used to receive an IP Office systems configuration settings. See Open a Configuration 102.

The same action is performed by the icon in the Main Toolbar.



The dialog shown above lists all available Essential Edition - PARTNER® Version configuration files. Select the one you want to use by checking the box to the left of the filename. The OK button then becomes active.

When a file is opened it is loaded into manager memory.

The Select IP Office dialog is also used for other actions such as reboot and sending a configuration. If the unit required is not found, the Unit/Broadcast Address can be changed and then Refresh clicked. To change the TCP addresses scanned, select File | Preferences | Discovery 80 and enter the required addresses in the IP Search Criteria.

Known Units

Displays all configuration files found by the Manager application. This includes unassociated files that may be stored on the Manager system and/or files present on the WAN if the Manager laptop is connected.

3.1.2 Close Configuration

This command closes the current configuration file loaded in Manager memory without saving it.

3.1.3 Save Configuration

The File | Save Configuration command saves the amended configuration in Manager memory:

- If the configuration has been received from an SD card, the Send Config 86 menu is displayed.
- If the configuration file has been opened offline or created from new, the file is saved to disk only.

3.1.4 Save Configuration As

The File | Save As command allows you to save a configuration offline. The command displays the Save File As dialog box. You can enter the new file name, including the drive and directory.

Configurations saved onto the PC in this way can be reopened using the icon or the File | Offline | Open File command.

Note that dynamic configuration data, for example advertised hunt groups, is not included in a configuration file until the configuration file is saved onto PC and the SD card configuration is reopened for use by a control unit.

3.1.5 Preferences

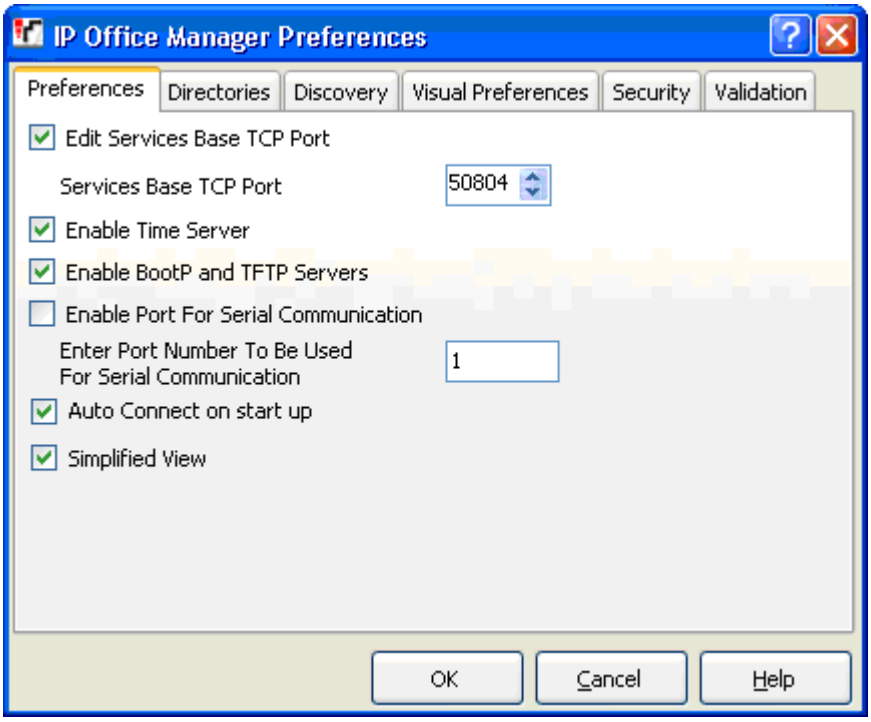
This command displays a dialog for configuring various aspects of Manager operation. The dialog is divided into a number of tabs.

- Preferences 80
- Directories 81
- Discovery 81
- Visual Preferences 82
- Security 83
- Validation 84

3.1.5.1 Preferences

This tab is accessed through File | Preferences and then selecting the Preferences tab.

Note: For Partner Admin tool a number of option have been moved from this sub-tab to the Security 83 sub-tab. Those options are Request Login on Save, Close Configuration/Security Settings After Send, Save Configuration File After Load, Backup Files on Send.



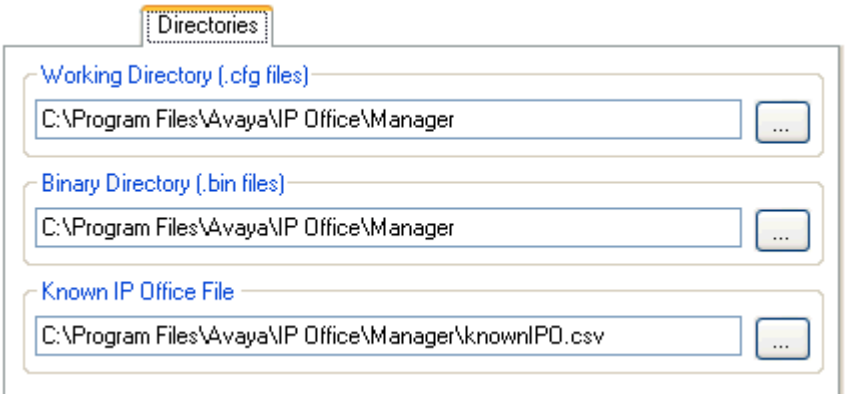
- Edit Services Base TCP Port: *Default = On.*
  This field shows or hides the Service Base TCP Port setting.
  - Service Base TCP Port: *Default = 50804*
    Access to the configuration and security settings on an Essential Edition - PARTNER® Version 3.2+ system requires Manager to send its requests to specific ports. This setting allows the TCP Base Port used by Manager to be set to match the TCP Base Port setting of the IP Office system. The IP Office system's TCP Base Port is set through its security settings.
- Enable Time Server: *Default = On.*
  This setting allows Manager to respond to time requests from Essential Edition - PARTNER® Version systems.
- Enable BootP and TFTP Servers: *Default = On.*
  This setting allows Manager to respond to BOOTP request from IP Office systems for which it also has a matching BOOTP entry. It also allows the Essential Edition - PARTNER® Version to respond to TFTP requests for files.
- Enable Port for Serial Communication
  Not used. This is a legacy feature for some older control units that were managed via the serial port rather than the LAN.
  - Enter Port Number to be used for Serial Communication
    Used with the setting above to indicate which serial port Manager should use.
- Auto Connect on start up: *Default = On*
  When Manager is started it automatically starts searching for a useable configuration file on the system SD card.

- Set Simplified View as Default: *Default = On*
  Used only by experienced Manager users who may want Manager to start only with the Welcome 14 screen.

3.1.5.2 Directories

This tab is accessed through File | Preferences and then selecting the Directories sub-tab.

These fields set the default location where Manager will look for and save files.



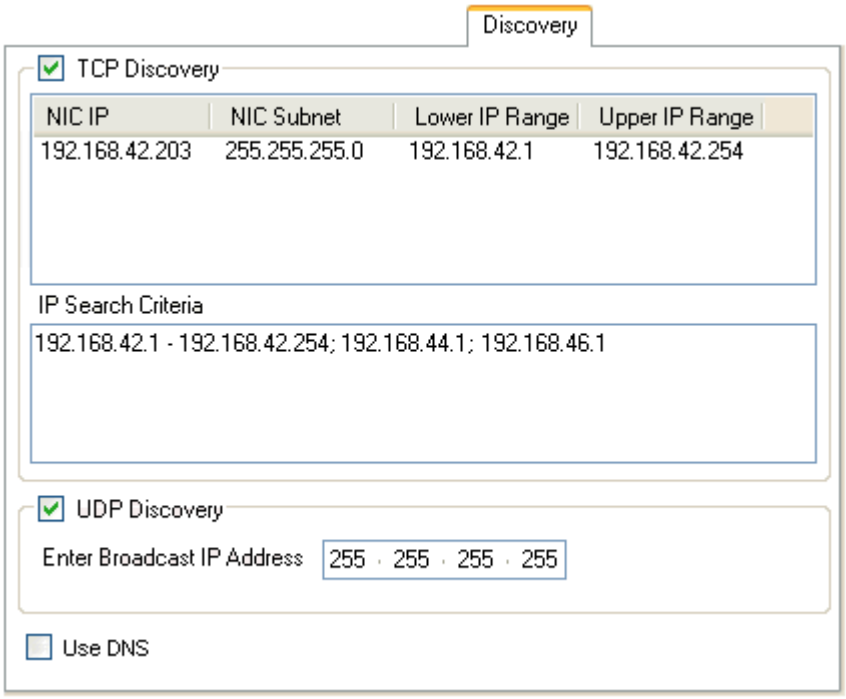
- Working Directory (**.cfg files**)
  Sets the directory into which Manager saves .cfg files. By default this is the Manager application's program directory.
- Binary Directory (.bin files)
  Sets the directory in which the Manager upgrade wizard, HTTP, TFTP and BOOTP functions look for firmware files requested by phones, expansion module, control units and other hardware components. That includes .bin file, .scr files and .txt files. By default this is the Manager application's program directory.
  - Note that in the Upgrade Wizard 90, right-clicking and selecting Change Directory also changes this setting.
- Known Units File:
  Sets the file and directory into which Manager can record details of the IP Office systems it has discovered. Once a file location has been specified, a Known Units button becomes available on the discovery dialog used for loading Essential Edition - PARTNER® Version configuration. Pressing that button displays the known units file as a list from which the required IP Office system can be selected. It also allows sorting of the list and entries to be removed.

3.1.5.3 Discovery

This tab is accessed through File | Preferences and then selecting the Discovery sub-tab.

When is clicked, the Select IP Office form appears and Manager attempts to discover any IP Office systems. Within Preferences, the Discovery tab sets the IP addresses and methods used for the discovery process.

By default Essential Edition - PARTNER® Version 3.2 systems respond to both UDP and TCP discovery. Pre-3.2 IP Office systems only support UDP discovery.

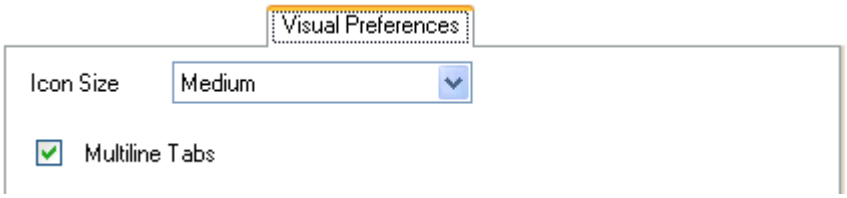


- TCP Discovery: *Default = On*
  This setting controls whether Manager uses TCP to discover systems. The addresses used for TCP discovery are set through the IP Search Criteria field below.
  - NIC IP/NIC Subnet
    This area is for information only. It shows the IP address settings of the LAN network interface cards (NIC) in the PC running Manager. Double-click on a particular NIC to add the address range it is part of to the IP Search Criteria. Note that if the address of any of the Manager PC's NIC cards is changed, the Manager application should be closed and restarted.
  - IP Search Criteria
    This tab is used to enter TCP addresses to be used for the discovery process. Individual addresses can be entered separated by semi-colons, for example 135.164.180.170; 135.164.180.175. Address ranges can be specified using dashes, for example 135.64.180.170 - 135.64.180.175.
- UDP Discovery: *Default = On*
  This settings controls whether Manager uses UDP to discover IP Office systems. Pre-3.2 systems only respond to UDP discovery. By default IP Office 3.2 and higher systems also respond to UDP discovery but that can be disabled through the IP Office system's security settings.
  - Enter Broadcast IP Address: *Default = 255.255.255.255*
    The broadcast IP address range that Manager should used during UDP discovery. Since UDP broadcast is not routable, it will not locate IP Office systems that are on different subnets from the Manager PC unless a specific address is entered.
- Use DNS:
  Selecting this option allows Manager to use DNS name (or IP address) lookup to locate an IP Office system. Note that this overrides the use of the TCP Discovery and UDP Discovery options above. This option requires the IP Office IP address to be assigned as a name on the users DNS server. When selected the Unit/Discovery Address field on the dialogue is replaced by a Enter Unit DNS Name or IP Address field.

3.1.5.4 Visual Preferences

This feature is not available in Office Manager PARTNER® Version

The tab is accessed through File | Preferences and then selecting the Visual Preferences sub-tab.

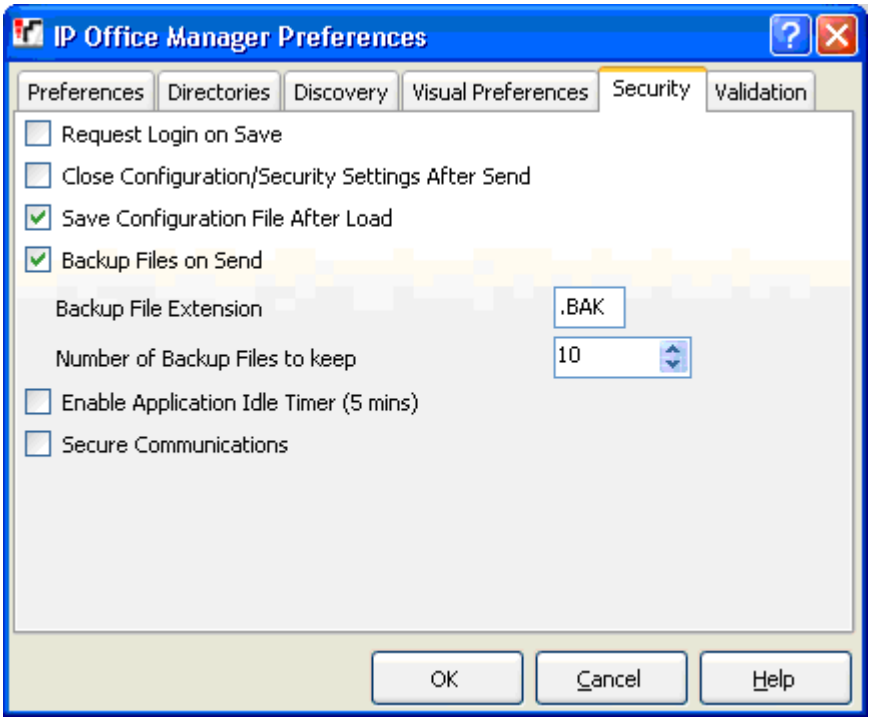


3.1.5.5 Security

This tab is accessed through File | Preferences and then selecting the Security sub-tab.

Controls the various security settings of Manager.

All settings, except Secure Communications, can only be changed when a configuration has been opened using a user name and password with Administrator rights or security administration rights.



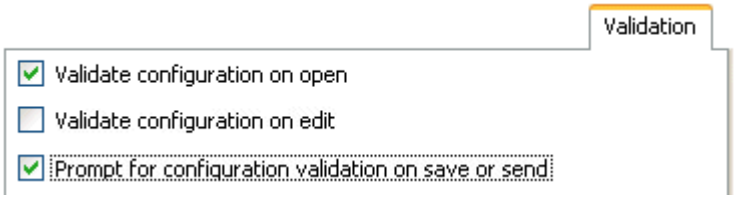
- Request Login on Save: *Default = Off*
  By default a valid user name and password is required to receive a configuration from an IP Office and also to send that same configuration back to the IP Office. De selecting this setting allows Manager to send the configuration back without having to renter user name and password details. This does not apply to a configuration that has been saved on PC and then reopened. This setting can only be changed when a configuration has been opened using a user name and password with Administrator rights or security administration rights.
- Close Configuration/Security Settings After Send: *Default = Off.*
  When selected, the open configuration file or security settings are closed after being sent back to the IP Office system.
- Save Configuration File After Load: *Default = On.*
  When selected, a copy of the configuration is saved to Manager's working directory 81. The file is named using the IP Office's system name and the suffix *.cfg*. This setting can only be changed when a configuration has been opened using a user name and password with Administrator rights or security administration rights.
- Backup Files on Send: *Default = On.*
  If selected, whenever a copy of a configuration is sent to an IP Office system, a backup copy is saved in Manager's working directory 81. The file is saved using the system name, date and a version number followed by the Backup File Extension as set below. This setting can only be changed when a configuration has been opened using a user name and password with Administrator rights or security administration rights.
- Backup File Extension: *Default = .BAK*
  Sets the file extension to use for backup copies of system configurations generated by the Backup Files on Send option above.
- Number of Backup Files to keep: *Default = 10,*
  This option allows the number of backup files kept for each system to be limited. If set to a value other then Unlimited, when that limit would be exceeded, the file with the oldest backup file is time and date stamp is deleted.

- Enable Application Idle Timer (5 minutes): *Default = Off,*
  When enabled, no keyboard or mouse activity for 5 minutes will cause the Manager to grey out the application and re-request the current service user password. This setting can only be changed when a configuration has been opened using a user name and password with Administrator rights or security administration rights.
- Secure Communications: *Default = Off,*
  When selected, any service communication from Manager to IP Office uses the TLS protocol. This will use the ports set for secure configuration and secure security access. It also requires the configuration and or security service within the IP Office's security configuration settings to have been set to support secure access. Depending on the level of that secure access selected, it may be necessary for the Manager Certificate Checks below to be configured to match those expected by the IP Office configuration and or security service. .
  - When Secure Communications is set to *On*, a padlock icon is displayed at all times in the lower right Manager status field.

3.1.5.6 Validation

This tab is accessed through File | Preferences and then selecting the Validation sub-tab.

By default Manager validates the whole configuration when it is loaded and individual fields whenever they are edited. This tab allows selection of when automatic validation should be applied to configuration files loaded into Manager.


Validation
Validate configuration on open
Validate configuration on edit
Prompt for configuration validation on save or send

- Validate configuration on open
  Automatically validate configuration files when they are opened in Manager.
- Validate configuration on edit
  Validate the whole configuration when OK is clicked after editing a record. For large configurations, disabling this option removes the delay caused by validating the configuration after every edit.
- Prompt for configuration validation on save or send
  If selected, when saving or sending a configuration, a prompt is displayed asking whether the configuration should be validated. If validation is selected and errors are found, the send or save process is canceled. This option is disabled if Validate configuration on edit is selected.

3.1.6 Offline

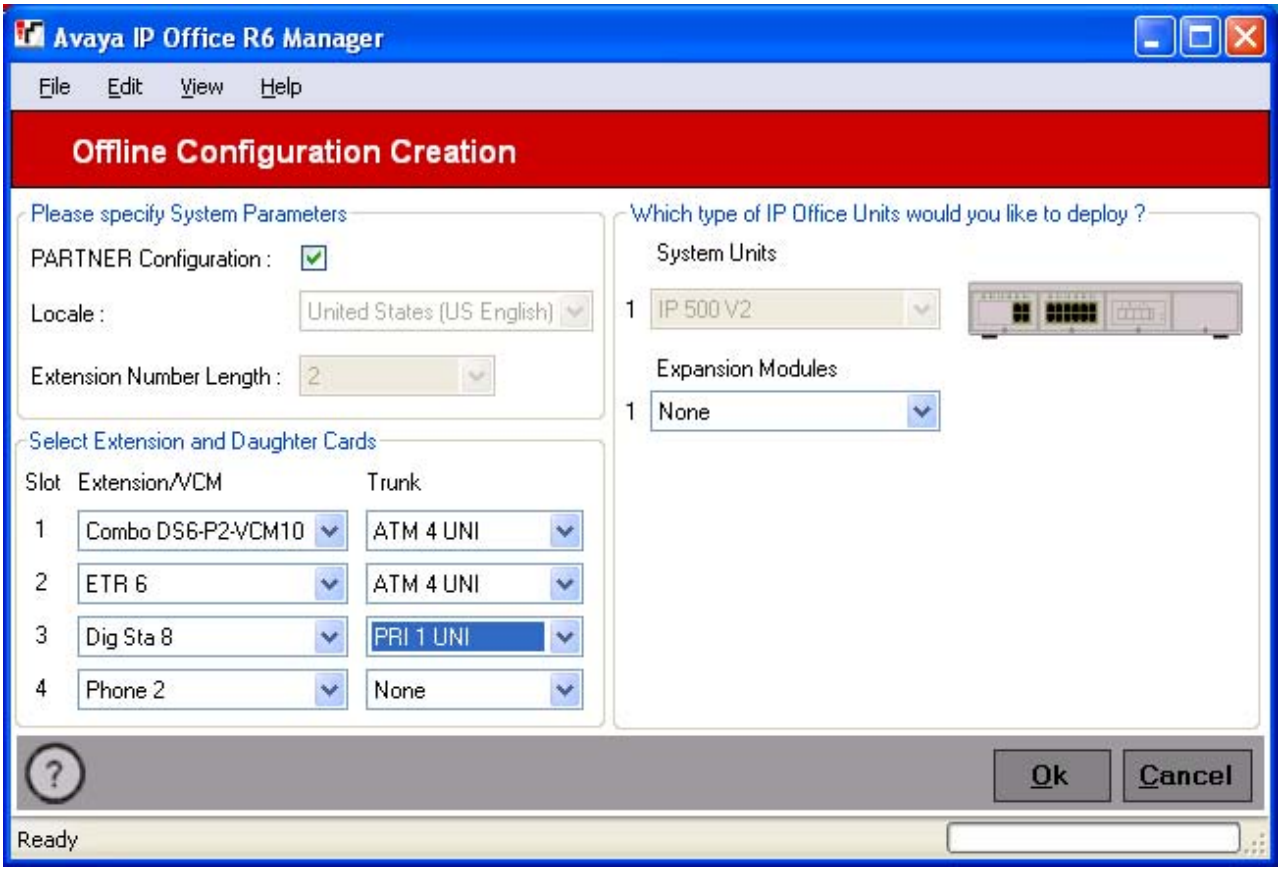
These menu commands are available for working with other configuration files that are not being used by your Essential Edition - PARTNER® Version system.

3.1.6.1 Create New Config

Manager can be used to create a configuration file for an Essential Edition - PARTNER® Version PARTNER Version system, to be loaded into a system using Manager or to copy onto a System SD card.

This menu command is only available when Manager is not connected to an Essential Edition - PARTNER® Version system.

1. In the main menu bar select File | Offline | Create New Config. or from Welcome View select Create an Offline Configuration



2. In the dialog that is displayed, select the PARTNER Configuration box to specify a configuration for a PARTNER Version system.
3. Locale and Extension Number Length fields are fixed values for Essential Edition - PARTNER® Version and are grayed out.
4. In the Select Extension and Daughter Cards section select the cards that match those in the system to which the configuration will be loaded. Only cards supported by systems running in Partner Version mode are shown.

IP500 Base Cards	IP500 Daughter Cards	Expansion Modules
Maximum 4	Maximum 4	Maximum 1
• Digital Station 8 (Max 3) • Phone 2 • Phone 8 • ETR6 (Max 3) • Combination Card ATM4	• ATM4 Uni • PRI 1 Uni (Max 1)	• Digital Station 16 • Phone 16

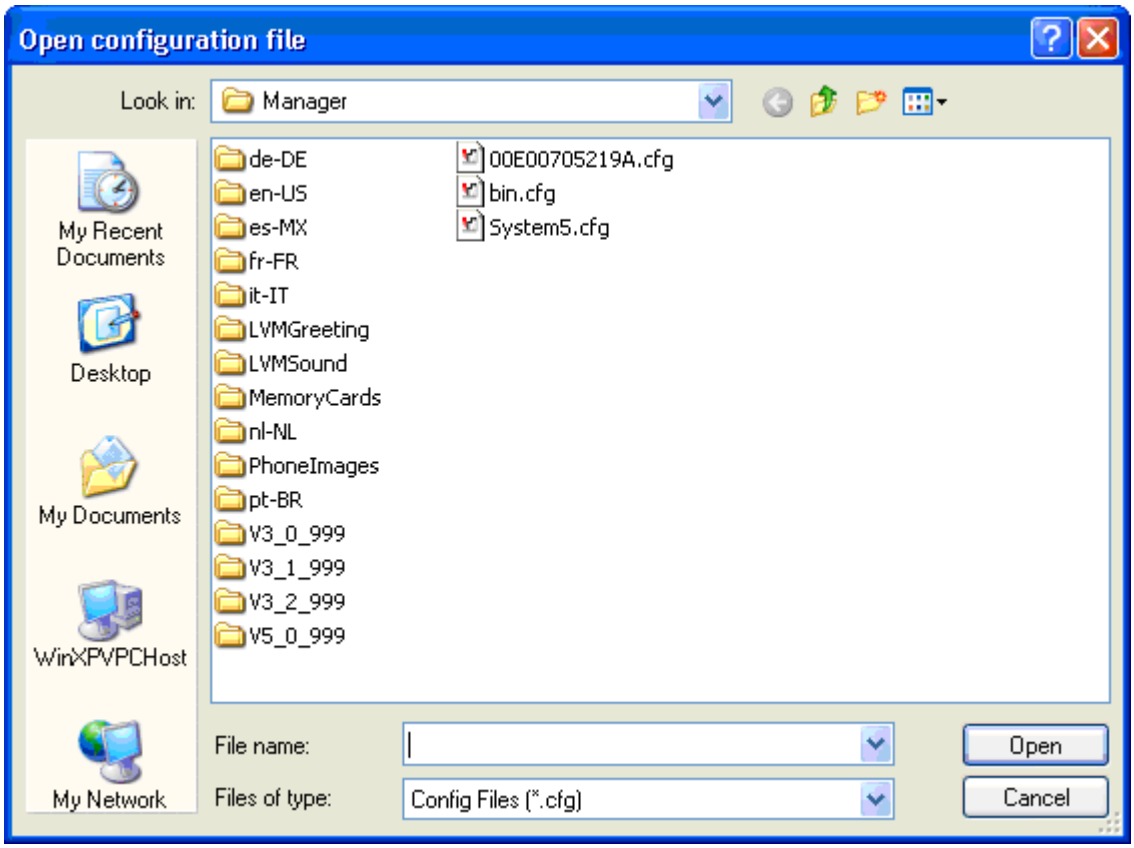
5. Use the Expansion Modules box to select the expansion module if there is one attached to the system to which the configuration will be loaded.
6. When the hardware selection is as required, click OK.
7. The configuration is now created and loaded into Manager for editing.
8. When completed:
   - To save the file locally, select File | Save Configuration as.
   - To send the configuration to a system, select File | Offline | Send Config....

3.1.6.2 Open File

This command is used to fetch an offline configuration file (not from the control unit) from its location and load it into Manager memory.

The *Open configuration file* dialog enables you to browse your local network for a configuration file to load into Manager memory.

⚠ This menu command is only available when Manager is not connected to an Essential Edition - PARTNER® Version system.



The example illustrated above shows three configuration files to choose from

3.1.6.3 Send Config

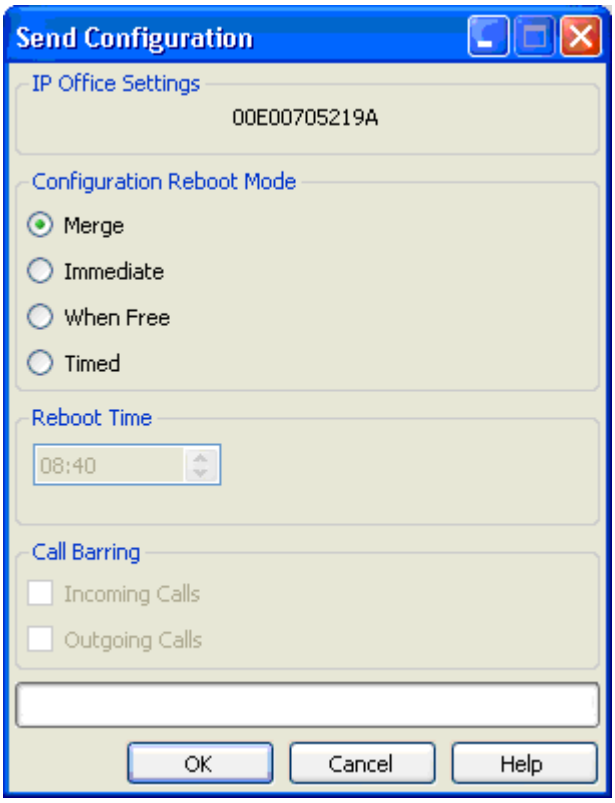
Send Config.

This command is used to send an offline configuration to an Essential Edition - PARTNER® Version system. The first steps of the process depend on whether you are sending a configuration received from the Essential Edition - PARTNER® Version system or sending one opened offline/created new.

⚠ This menu command is only available when Manager is not connected to an Essential Edition - PARTNER® Version system.

Select File | Offline | Send Config from the menu bar.

1. The Send Configuration dialog is displayed.

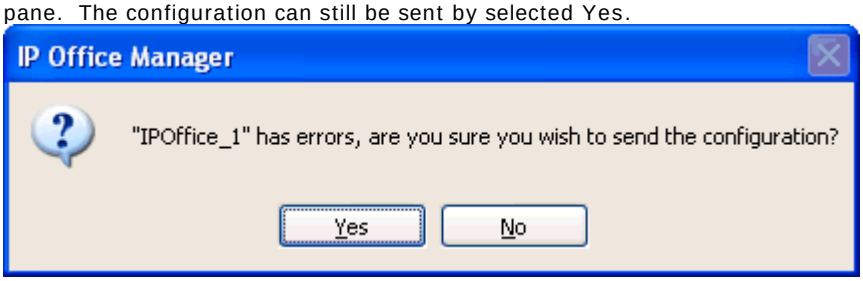


2. If Manager thinks the changes made to the configuration settings are merge able, it will select Merge by default, otherwise it will select Immediate.

    - Merge
      Sends the configuration settings without rebooting the IP Office. This mode should only be used with settings that are merge able.
    - Immediate
      Send the configuration and then reboot the Essential Edition - PARTNER® Version.
    - When Free
      Send the configuration and reboot the Essential Edition - PARTNER® Version when there are no calls in progress. This mode can be combined with the Call Barring options.
    - Timed
      The same as When Free but waits for a specific time after which it then wait for there to be no calls in progress. The time is specified by the Reboot Time. This mode can be combined with the Call Barring options.

- Reboot Time
  This setting is used when the reboot mode Timed is selected. It sets the time for the Essential Edition - PARTNER® Version reboot. If the time is after midnight, the IP Office's normal daily backup is canceled.
- Call Barring
  These settings can be used when the reboot mode When Free is selected. They bar the sending or receiving of any new calls.

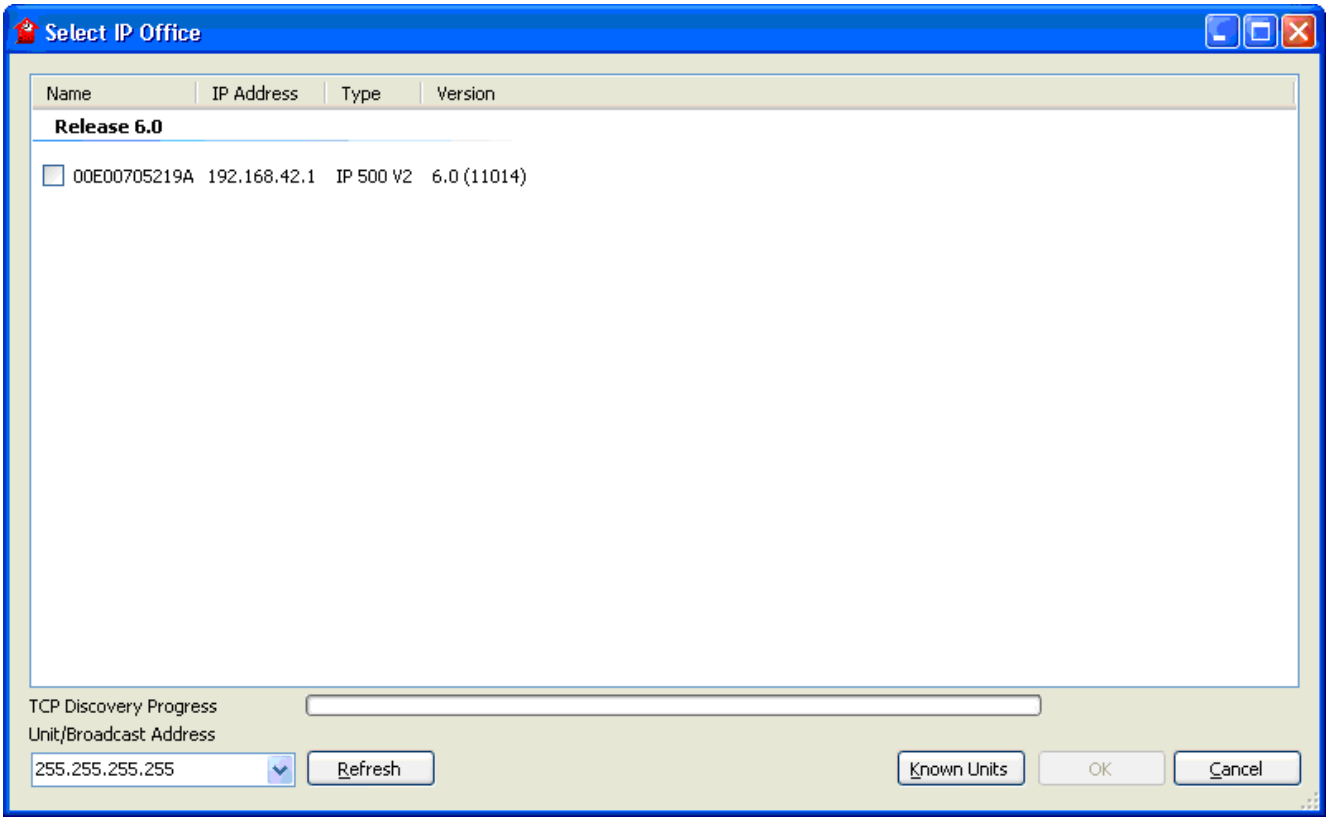
3. The following warning will appear if the configuration being sent contain any errors indicated by a icon in the error pane. The configuration can still be sent by selected Yes.



3.1.6.4 Receive Config

This command is used to fetch the configuration file from the SD card of an attached Essential Edition - PARTNER® Version system and load it into Manager memory.

When this command is used, the Select IP Office dialog is displayed.



Once an IP Office system is selected, a valid user name and password are required to complete the action.

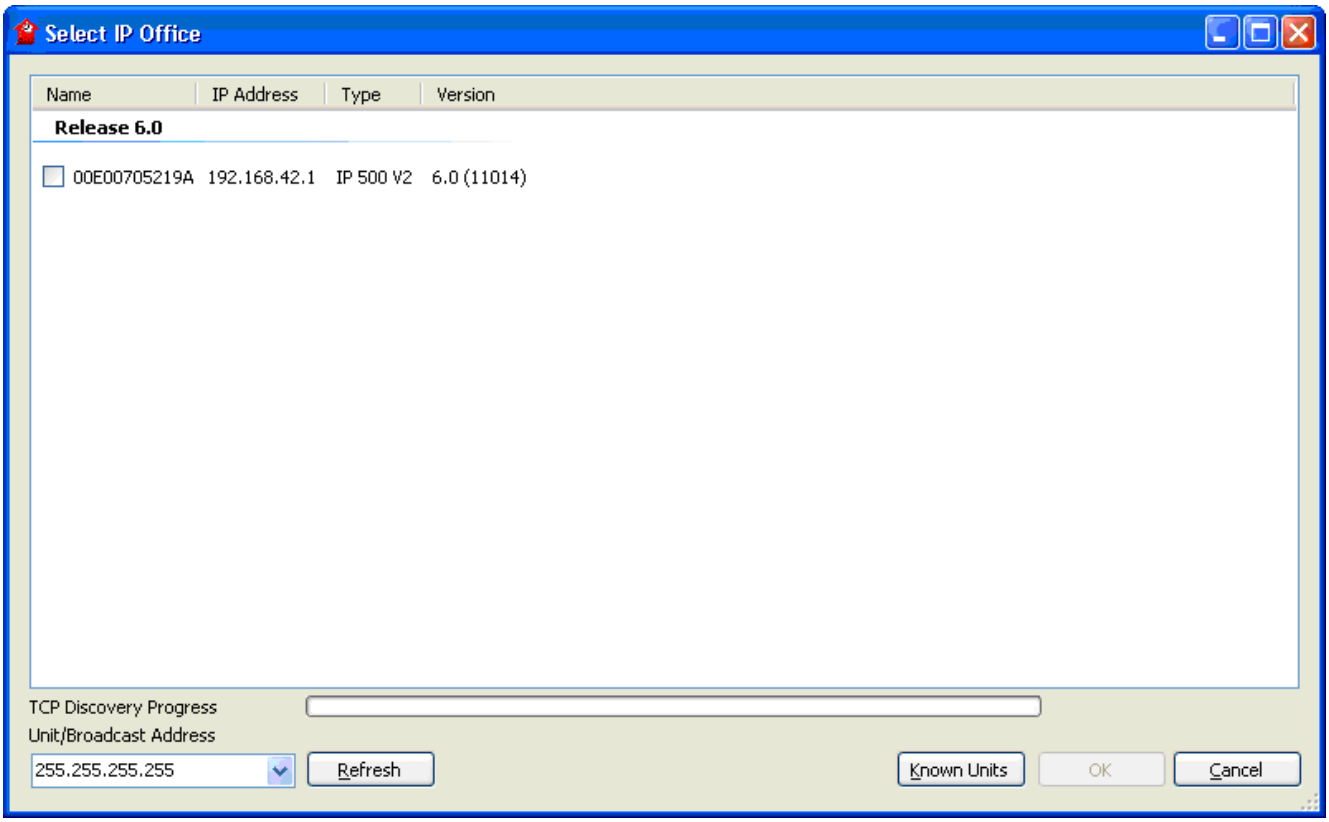
3.1.7 Advanced

These Advanced menu options detail advanced administration tasks that can be carried out with configuration files and SD cards

3.1.7.1 Erase Configuration (Default)

This command erases the configuration file currently in Manager memory.

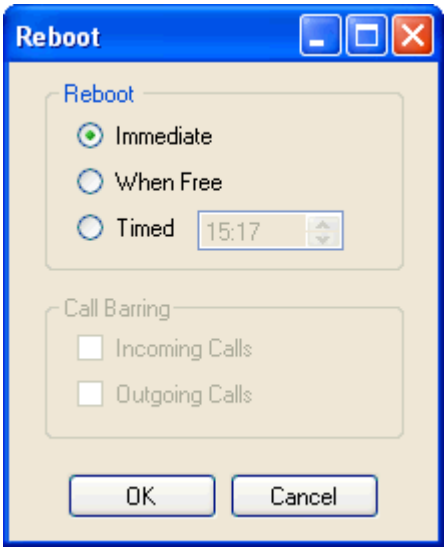
When this command is used, the Select IP Office dialog is displayed.

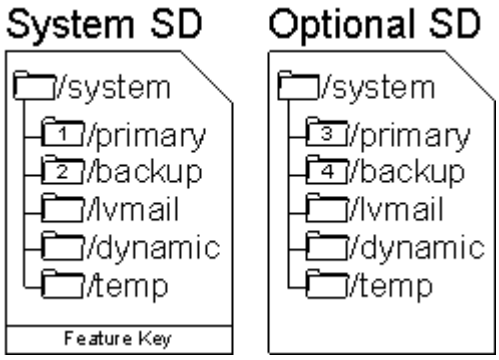


Once an IP Office system is selected, a valid user name and password are required to complete the action.

3.1.7.2 Reboot

When this command is used, the Select IP Office dialog is displayed. Once an IP Office system is selected , a valid user name and password are required. After OK is pressed the type of reboot can then be selected.





Order of configuration file search during boot up

3.1.7.3 System Shutdown

When this command is used, the Select IP Office dialog is displayed.

Clicking Known Units, displays all connected systems including system extension units and any connected to the network.

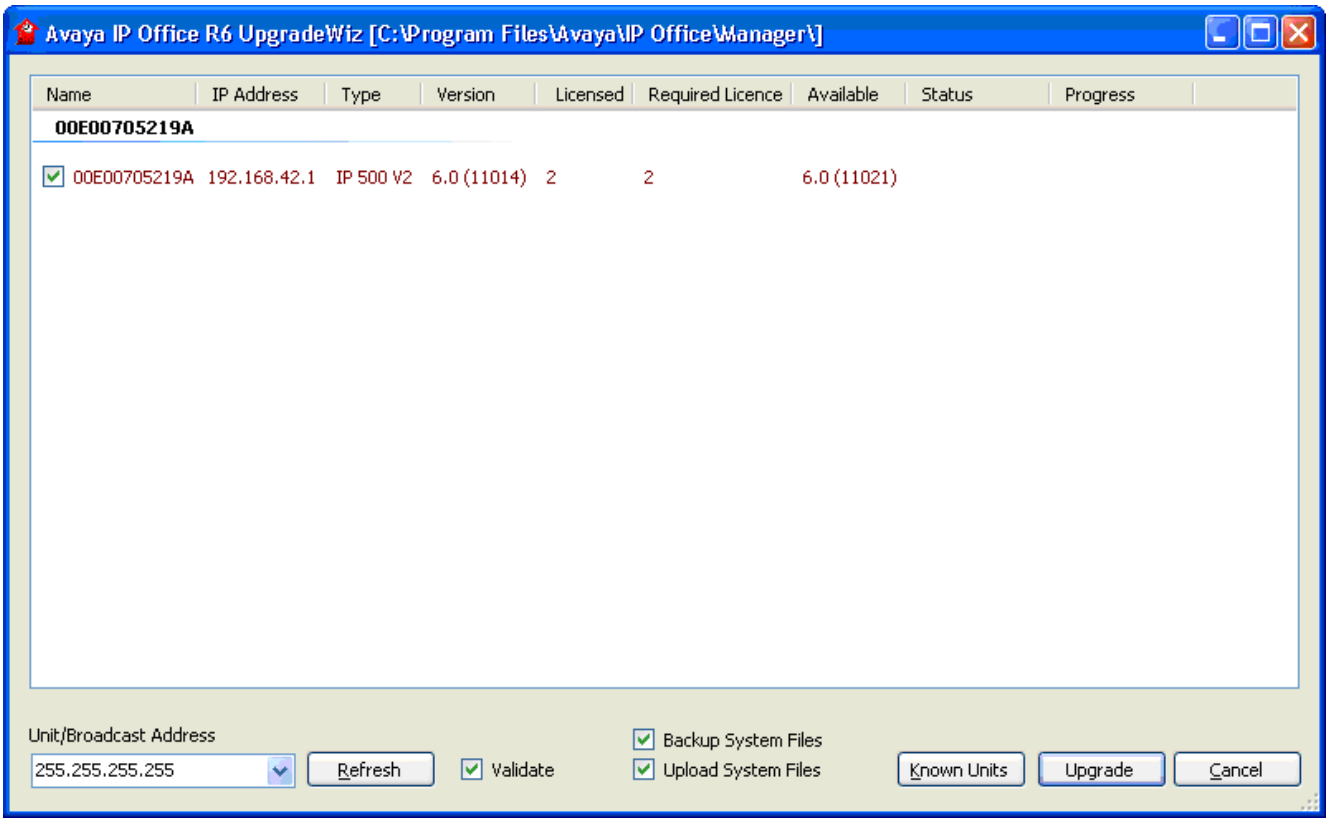
Once an IP Office system is selected OK can be clicked to shutdown that system.

Note: A system must be shutdown before an SD card is removed or inserted.

3.1.7.4 Upgrade

This command starts the Upgrade Wizard tool. This tool is used to compare the software level of the control unit and expansion modules within Essential Edition - PARTNER® Version systems against the software level of the .bin binary files Manager has available. The Upgrade Wizard can then be used to select which units to upgrade.

- ⚠ WARNING
  Incorrect use of the upgrade command can halt IP Office operation and render units in the system unusable. You must refer to the Essential Edition - PARTNER® Version Technical Bulletins for a specific release for full details of performing software upgrades to that release.
- ⚠ WARNING
  Reboot, which takes place at the end of this process will restart the phone system and disconnect all currently connected calls. Avaya recommend that Upgrade is performed as an 'Out-of-working hours' task.
- Performing any other actions on a system during an upgrade or closing the upgrade wizard and Manager during an upgrade may render systems unusable.
- During an upgrade the Essential Edition - PARTNER® Version system may restrict calls and services. It will reboot and disconnect all current calls and services.
- The Validate option must remain selected wherever possible. Use of non validated upgrades is subject to a number of conditions outlined in the IP Office Installation Manual and Technical Bulletins.



The list area shows details of IP Office systems found by the Upgrade Wizard. The Version column details the current software each unit in the systems is running whilst the Available column shows the version of .bin file Manager has available for that type of unit (a – indicates no file available).

The check boxes are used to select which units should be upgraded. Upgrading will require entry of a valid name and password for the selected Essential Edition - PARTNER® Version system.

Using Manager to upgrade:

1. Leave all the check boxes the same as the options offered when the upgrade wizard is launched. The Validate option should remain selected wherever possible. When selected, the upgrade process is divided as follows: transfer new software, confirm transfer, delete old software, restart with new software. If Validate is not selected, the old software is deleted before the new software is transferred.

2. Select the upgrade box beside the IP Office file you are going to upgrade to.

3. Click **Upgrade**, this will start the upgrade process.

4. Upgrade ends with a system reboot.

Note that the phone binaries are updated when going between major releases. However, be aware that if the name of the phone binary has not changed between the releases this process will not work for the ports that have 1400 phones plugged in already. This only applies to development releases and would require another reboot once the upgrade process is complete to download the correct binary to the phone.

Using the optional SD card slot to upgrade:

The customer is sent an SD card with the new SD card image for that release.

1. Insert the new SD card is into the ***Optional SD*** card slot.

2. From either extension 10 or 11, enter the system password

3. Enter #731. This will upgrade the IP Office 500v2 control unit.

The upgrade process is as follows:

I. The primary directory is copied to the backup directory.

II. All the system files from the optional SD card are copied to the primary directory of the ***System SD*** card

III. The system automatically reboots and starts using the new binaries in the primary directory of the System SD card. This includes any phone firmware binaries as well.

Sorting the List

1. To sort list of IP Office systems click on the Name or IP Address column headings.

Search for Particular Systems

The default address used by the Upgrade Wizard is the address shown in the Manager title bar, which is selected through File | Preferences 81. If the unit required is not found, the address used can be changed.

1. Enter or select the required address in the Unit/Broadcast Address field.
2. Click Refresh to perform a new search.

Changing the .bin File Directory Used

The directory in which the Upgrade Wizard looks for .bin files is set through Manager's Binary Directory setting. This can be changed using File | Preferences | Directories 81. It can also be changed directly from the Upgrade Wizard as follows.

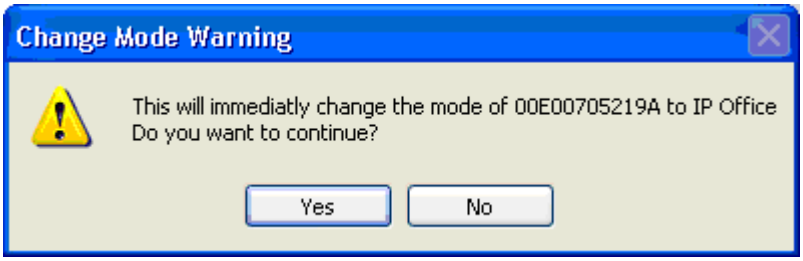
1. Right-click on the list area.
2. Select Select Directory.
3. Browse to and highlight the folder containing the .bin files. Click OK.
4. The list in the Available column will be updated to show the .bin files in the selected directory that match IP Office units or modules listed.

3.1.7.5 Change Mode

This option is only for use by very experienced users and if selected, is challenged by administrator log in before continuing.

Administrator log in is followed by an IP Office discovery by Manager so that IP Office systems are listed for you to choose another system. This means you are about to abandon any actions or changes you have carried out in this management session.

Before changing mode it is advisable to backup the configuration.



The feature is designed For demonstration purposes, to rapidly change between IP Office full version and Partner Version and vice-versa without swapping SD cards and shutting down etc.

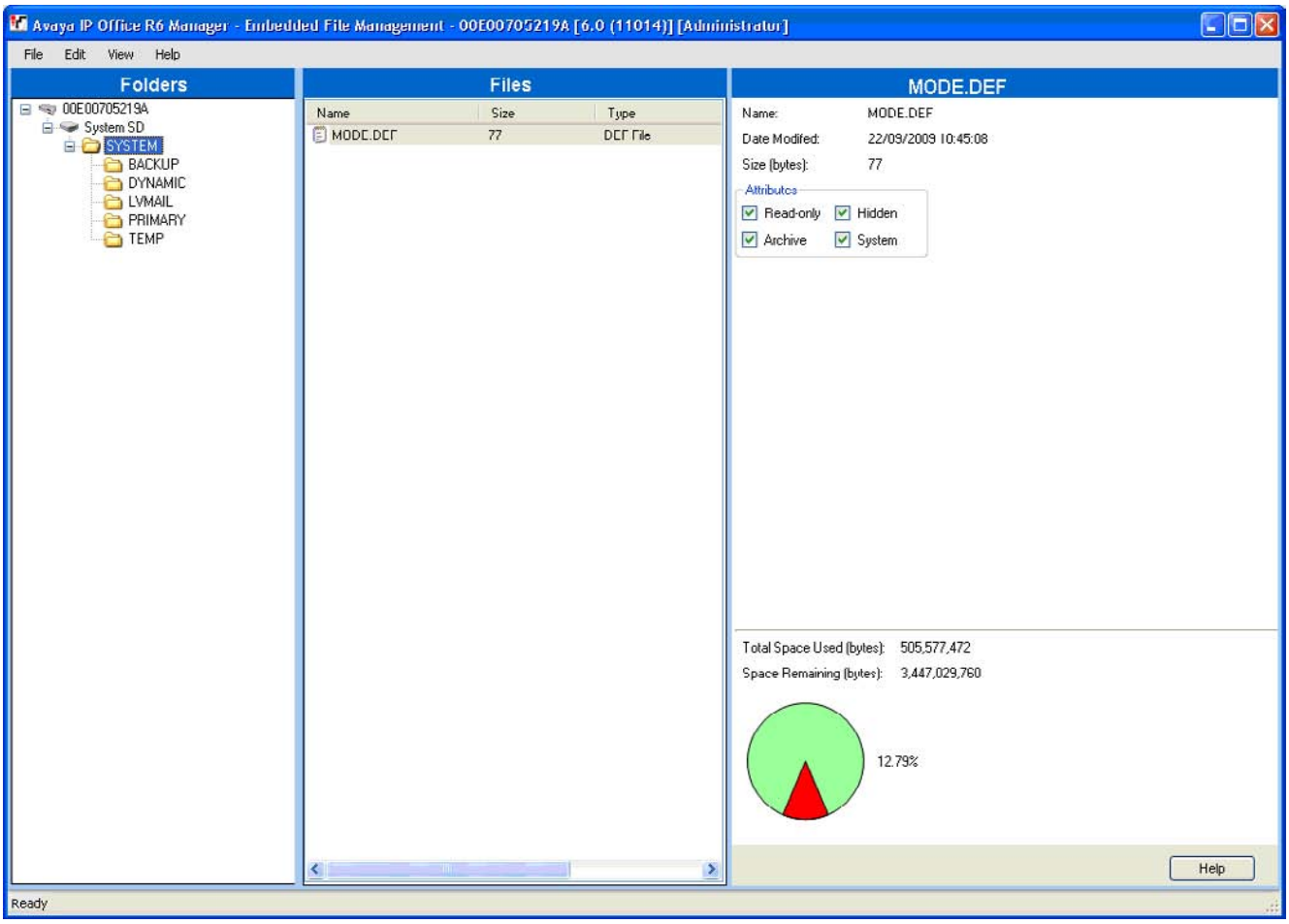
Be aware that if you change mode from PARTNER® Version to IP Office and you have an ETR 6 card installed, IP Office cannot recognize it. This means you may get a firmware conflict and not be able to revert to PARTNER® Version mode.

3.1.7.6 Embedded File Management

By selecting this option you will exit the Manager application and communicate directly with the SD card 8. If you have made unsaved changes changes to the copy configuration file you are prompted to save the configuration before the command progresses.

This option is only for use by experienced users and if selected, is challenged by administrator log in 14 before continuing.

Administrator log in is followed by an IP Office discovery by Manager so that IP Office systems are listed for you to choose another system. This view provides access to the SD card and enables you to add and remove files from it. This may be useful when the memory card is being used to store Music on Hold or IP phone firmware files.



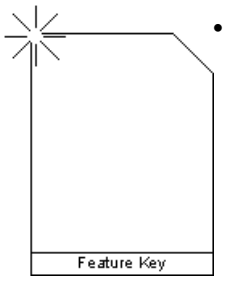
- Viewing a Memory Card
  When a system is selected, a valid service user name and password for configuration access to that system is requested. If the system selected does not have a memory card installed, the files view remains blank and the message *TFTP:Received TFTP Error "Not Found"* appears in Manager's status bar.
- Embedded Voicemail Files
  When viewing the memory card, the files related to Embedded Voicemail are visible in LVMAIL directory, however these files are grayed out (ie. cannot be deleted, downloaded or overwritten).
  - Mailbox greetings and messages are shown as ***.clp*** files.
  - The language prompts for Embedded Voicemail functions are stored in separate language sub-folders of LVMAIL.
  - Named prompt files for use by Embedded Voicemail auto attendants are stored in the lvmail\AAG folder and use the same *.c11* file formats as the language prompts. These files can be created from standard .wav files before being downloaded to the memory card.
- Avaya IP Phone Files
  The memory card can be used as the source of files requested by IP Phones when rebooting. For phones using IP Office DHCP, once the files are loaded onto the card, the TFTP Server IP Address and HTTP Server IP Address on the System | System tab must be set to match the IP Office LAN address.
  - For IP Office 5.0, the Manager menu option File | Upload Phone Files will automatically select and transfer all DS phone, H323 phone and IP DECT binary files from the Manager folder to the embedded memory card.
- Changing the Files View
  The type of display used in the Files pane can be changed by selecting from the View menu in the toolbar.
- Adding Files
  Files can be added to the card by dragging and dropping or by right-clicking on the Files pane and selecting Upload or by using File | Upload File.... The IP Office will ask for confirmation if the file already exists on the memory card. The progress of the file upload is then indicated.

- The Manager TFTP Log 97 shows the activity for files sent to and received from the memory card. It can be displayed by clicking on the TFTP Log button shown on the file upload/download dialog or by selecting View | TFTP Log.

- Deleting Files
  Existing files can be deleted by right-clicking on them and selecting Delete.
- Downloading Files
  Files can also be copied from the card by right-clicking on the file and selecting Download. Manager will prompt for the download location. Existing files are overwritten if present.
- To exit this mode of Manager back to normal configuration operation, select File | Configuration from the menu bar. Alternatively to view the card in another system, select File | Close File Settings and then File | Open File Settings.

3.1.7.7 Format IP Office SD Card

Only this method should be used for formatting an Avaya SD card. Using Manager ensures that special files required for Essential Edition - PARTNER® Version operation are created and that the Feature Key information is retained.



- ⚠ WARNING: All File Will Be Erased
  Note that this action will erase any existing files and folders on the card. Once a card has been formatted, the folders and files required for IP Office operation can be loaded onto the card from the Manager PC using the Recreate IP Office SD Card command.

  1. Insert the SD card into a reader (SDHC compatible) slot on the Manager computer.
  2. Using Manager, select File | Advanced | Format IP Office SD Card.
  3. Select IP Office Partner Version. This selection just sets the card label shown when viewing the card details. It does not affect the actual formatting.
  4. Browse to the card location and click OK.
  5. The status bar at the bottom of Manager will display the progress of the formatting process.
  6. When the formatting is complete, you can use the Recreate IP Office SD Card command to load the Essential Edition - PARTNER® Version folders and files onto the card from the Manager PC.

3.1.7.8 Recreate IP Office SD Card

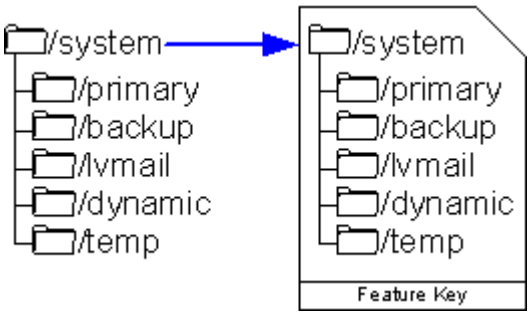
Create a SD card with folders, binaries etc based on the files installed with the current manager. For licenses the card must be an Avaya SD card.

Card must be correct type (4GB+ SDHC FAT32).

Choosing IP Office Partner Edition - displays a dialogue to select type of memory card formatting 94 to be applied.

Browse... - enables selection of source library for files and then destination card (the one you want to copy to).

Copy the system folder along with sub folders across to new SD card.



3.1.7.9 Memory Card Command

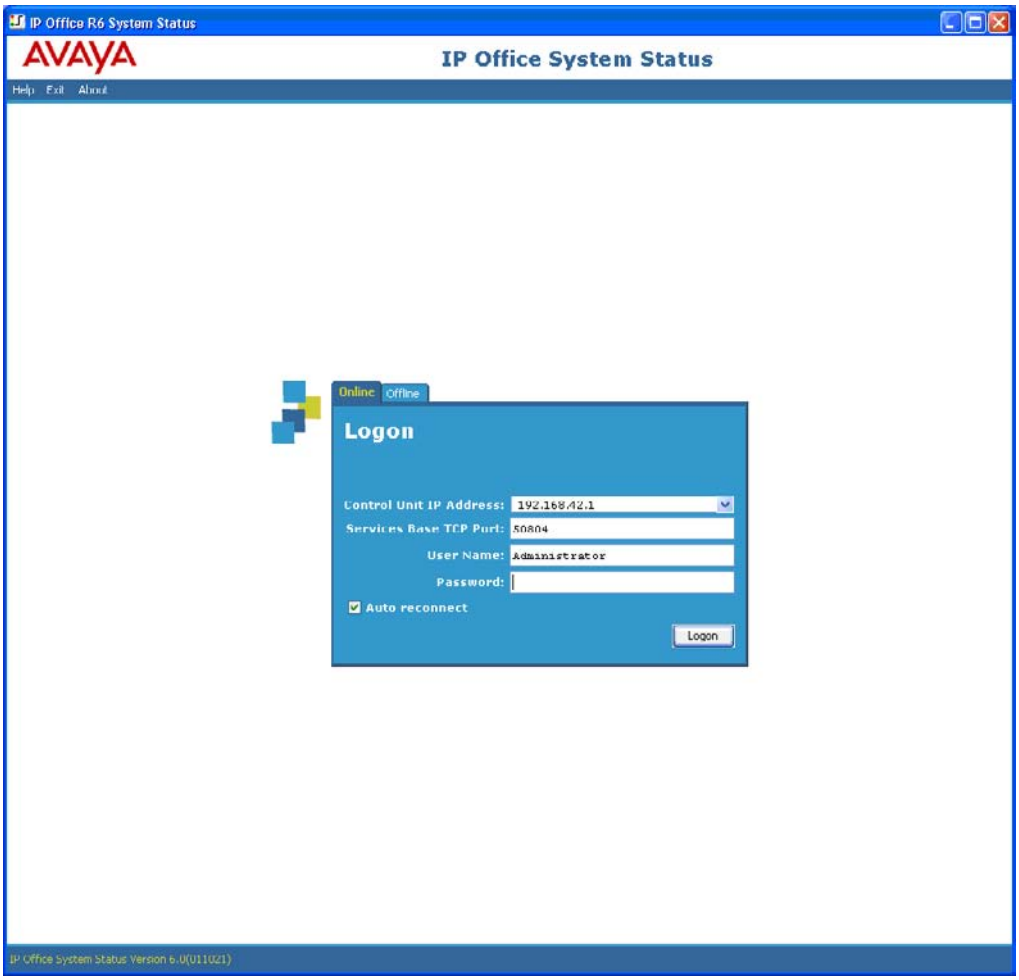
Enables you to shut down or restart an SD card. Use when removing a card from the control unit.

For either command it displays a warning, does discovery dialogue, asks for password.

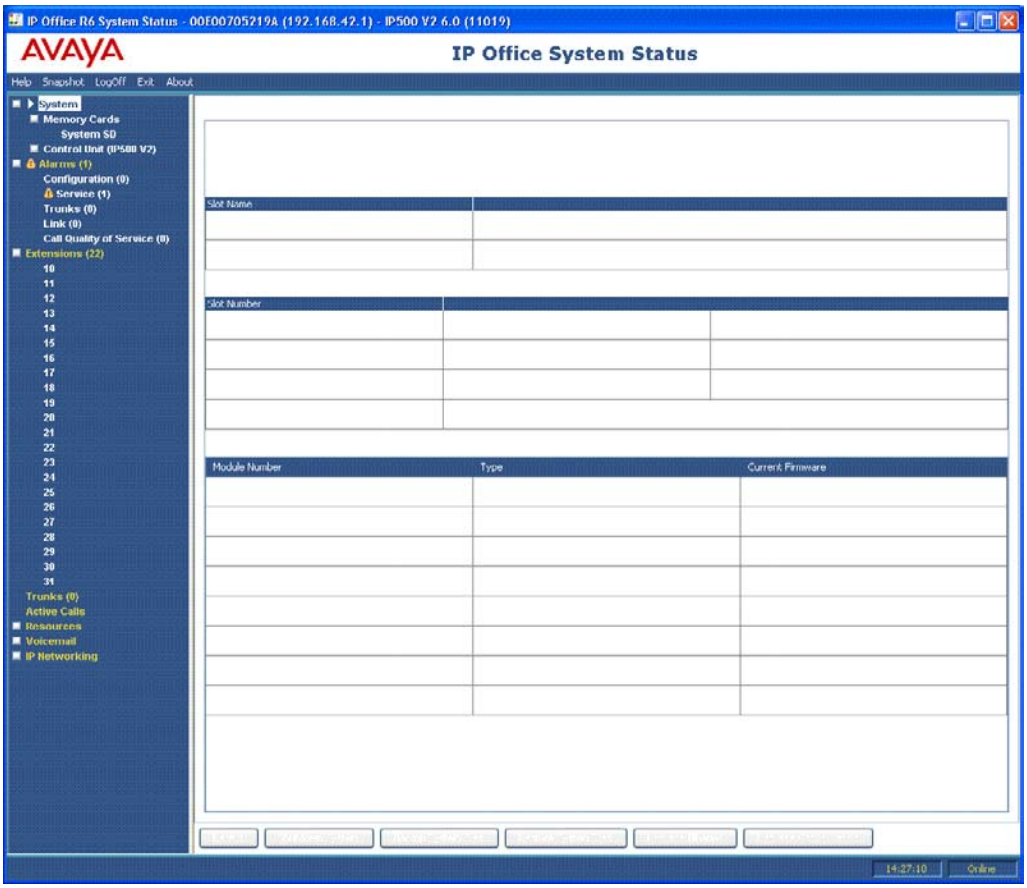
3.1.7.10 System Status

Essential Edition - PARTNER® Version System Status is an application that can be used to monitor and report on the status of the system.

This is a separate application from Manager that is installed on the SD Card, it can be started using the File | Advanced | System Status link within Manager. Use of the application requires a service user name and password.



1. Provide the password
2. Click Logon.
3. System Status provides details of the IP Office system to which you are connected.



3.1.8 Exit

The File | Exit command exits the Manager application. If you have unsaved changes, you are prompted to save them.

3.2 View Menu

The View menu commands enable you to configure the mode in which Essential Edition - PARTNER® Version manager presents system features and tasks.

3.2.1 Toolbars

This command allows you to select which toolbars should be shown or hidden in configuration mode. A tick mark is displayed next to the name of the selected toolbars.

Currently there is only one toolbar available

3.2.2 Tool Tip

Switches tool tips on and off. Tool tips are help text that is displayed when the mouse pointer is hovered over a window item or menu option.

3.2.3 Advance View

The Advance View command is a standard IP Office Manager command that is not applicable to working with Essential Edition - PARTNER® Version.

This menu item is only available when Manager is not connected to an Essential Edition - PARTNER® Version system. It is grayed out in all other modes.

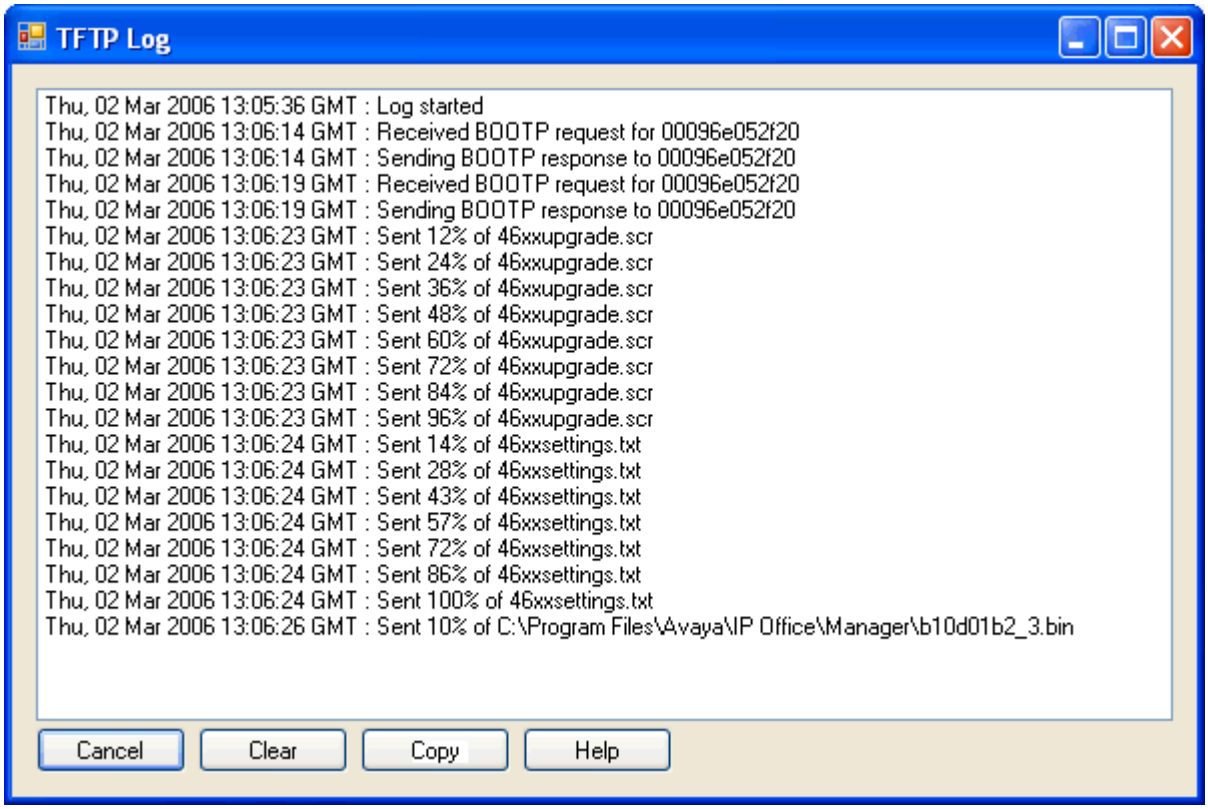
⚠ Caution Only used by experienced Manager users.

3.2.4 Hide Admin Tasks

This item is enabled by default. It hides the *Admin Tasks* and *Details* side panes on the Home page. See Admin Tasks 23 and Admin Tasks display 23.

3.2.5 TFTP Log

This command displays the TFTP Log window. This window shows TFTP traffic between Manager and devices that uses TFTP to send and receive files. For example, the TFTP Log below shows an Avaya IP phone requesting and then being sent its software files.


TFTP Log
Thu, 02 Mar 2006 13:05:36 GMT : Log started
Thu, 02 Mar 2006 13:06:14 GMT : Received BOOTP request for 00096e052f20
Thu, 02 Mar 2006 13:06:14 GMT : Sending BOOTP response to 00096e052f20
Thu, 02 Mar 2006 13:06:19 GMT : Received BOOTP request for 00096e052f20
Thu, 02 Mar 2006 13:06:19 GMT : Sending BOOTP response to 00096e052f20
Thu, 02 Mar 2006 13:06:23 GMT : Sent 12% of 46xxupgrade.scr
Thu, 02 Mar 2006 13:06:23 GMT : Sent 24% of 46xxupgrade.scr
Thu, 02 Mar 2006 13:06:23 GMT : Sent 36% of 46xxupgrade.scr
Thu, 02 Mar 2006 13:06:23 GMT : Sent 48% of 46xxupgrade.scr
Thu, 02 Mar 2006 13:06:23 GMT : Sent 60% of 46xxupgrade.scr
Thu, 02 Mar 2006 13:06:23 GMT : Sent 72% of 46xxupgrade.scr
Thu, 02 Mar 2006 13:06:23 GMT : Sent 84% of 46xxupgrade.scr
Thu, 02 Mar 2006 13:06:23 GMT : Sent 96% of 46xxupgrade.scr
Thu, 02 Mar 2006 13:06:24 GMT : Sent 14% of 46xxsettings.txt
Thu, 02 Mar 2006 13:06:24 GMT : Sent 28% of 46xxsettings.txt
Thu, 02 Mar 2006 13:06:24 GMT : Sent 43% of 46xxsettings.txt
Thu, 02 Mar 2006 13:06:24 GMT : Sent 57% of 46xxsettings.txt
Thu, 02 Mar 2006 13:06:24 GMT : Sent 72% of 46xxsettings.txt
Thu, 02 Mar 2006 13:06:24 GMT : Sent 86% of 46xxsettings.txt
Thu, 02 Mar 2006 13:06:24 GMT : Sent 100% of 46xxsettings.txt
Thu, 02 Mar 2006 13:06:26 GMT : Sent 10% of C:\Program Files\Avaya\IP Office\Manager\b10d01b2_3.bin
Cancel
Clear
Copy
Help

Chapter 4.
Managing Configuration Files

4. Managing Configuration Files

These actions are non Essential Edition - PARTNER® Version activities and must be done with caution.

4.1 Welcome Screen Options

You can only start from this screen when Manager is disconnected from the control unit or if you have closed a configuration file. i.e. there is no configuration file in Manager memory.

This operating mode would usually be used offline to prepare or alter configuration files for the SD card. This is necessary when an SD card is not available or the configuration file on the current SD card is not suitable.

By default, when Manager is started and a configuration file is not found, the Welcome view is presented

The administration tasks 100 concerned with configuration files accessed from the welcome screen pull a configuration file into Manager memory and you must save them back after manipulation for changes to take effect.

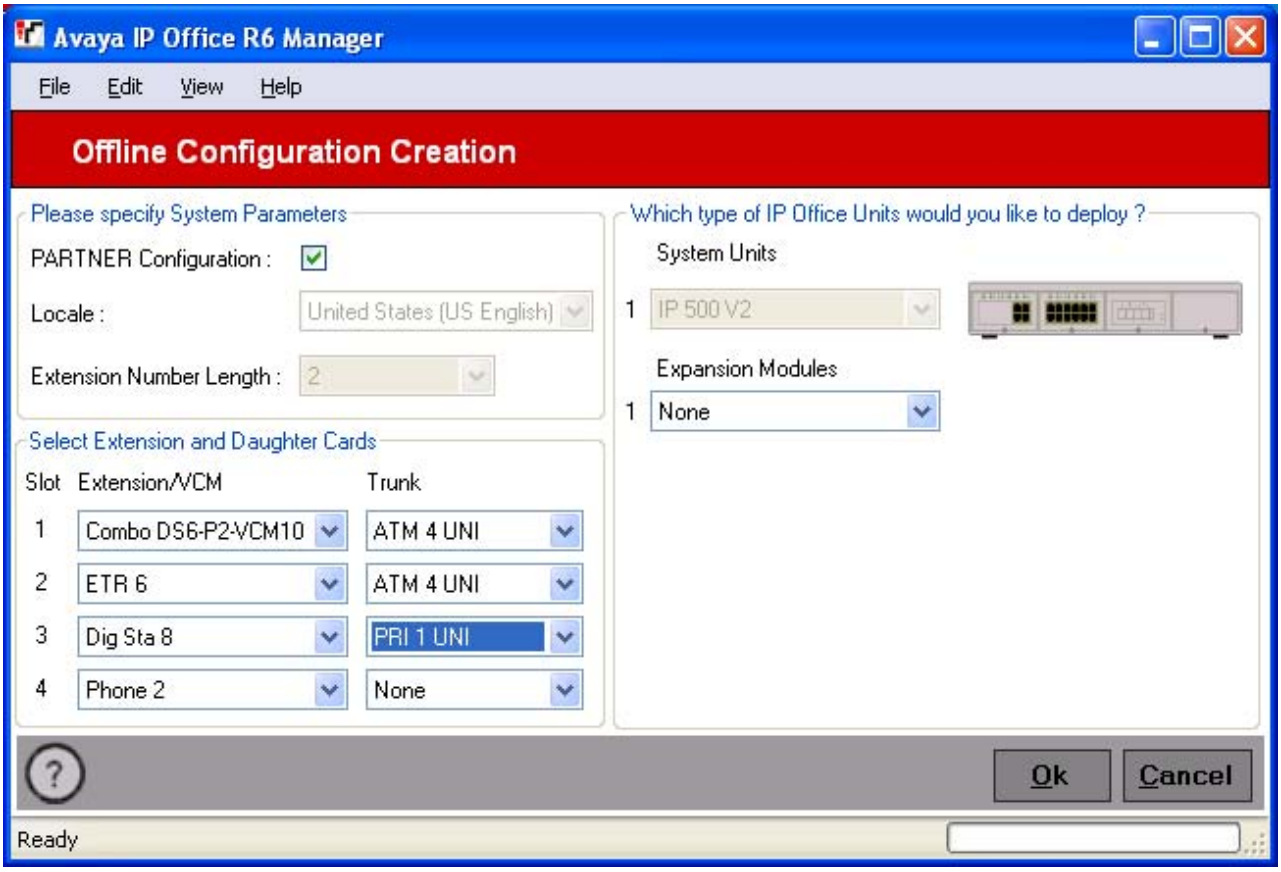
- To switch to Welcome view, select File | Close Configuration from the main menu
- If you want Manager to always start in the traditional IP Office configuration view, deselect the Simplified View option within the File | Preferences | Preferences tab. See Menu 80 command.
- Create an Offline Configuration 100
- Open a Configuration from System 102
- Read a Configuration from File 103

4.1.1 Offline Configuration

Manager can be used to create a configuration file for an Essential Edition - PARTNER® Version PARTNER Version system, to be loaded into a system using Manager or to copy onto a System SD card.

Similarly the configuration received from an Essential Edition - PARTNER® Version system can be saved elsewhere.

1. From Welcome View select Create an Offline Configuration or from the main menu bar, select File | Offline | Create New Config.



2. In the dialog that is displayed, select the PARTNER Configuration box to specify a configuration for a PARTNER® Version system.
3. Locale and Extension Number Length fields are fixed values for PARTNER® and are grayed out.
4. In the Select Extension and Daughter Cards section select the cards that match those in the system to which the configuration will be loaded. Only cards supported by systems running in Essential Edition - PARTNER® Version mode are shown.

IP500 Base Cards	IP500 Daughter Cards	Expansion Modules
Maximum 4	Maximum 4	Maximum 1
• Digital Station 8 (Max 3) • Phone 2 • Phone 8 • ETR6 (Max 3) • Combination Card ATM4	• ATM4 Uni • PRI 1 Uni (Max 1)	• Digital Station 16 • Phone 16

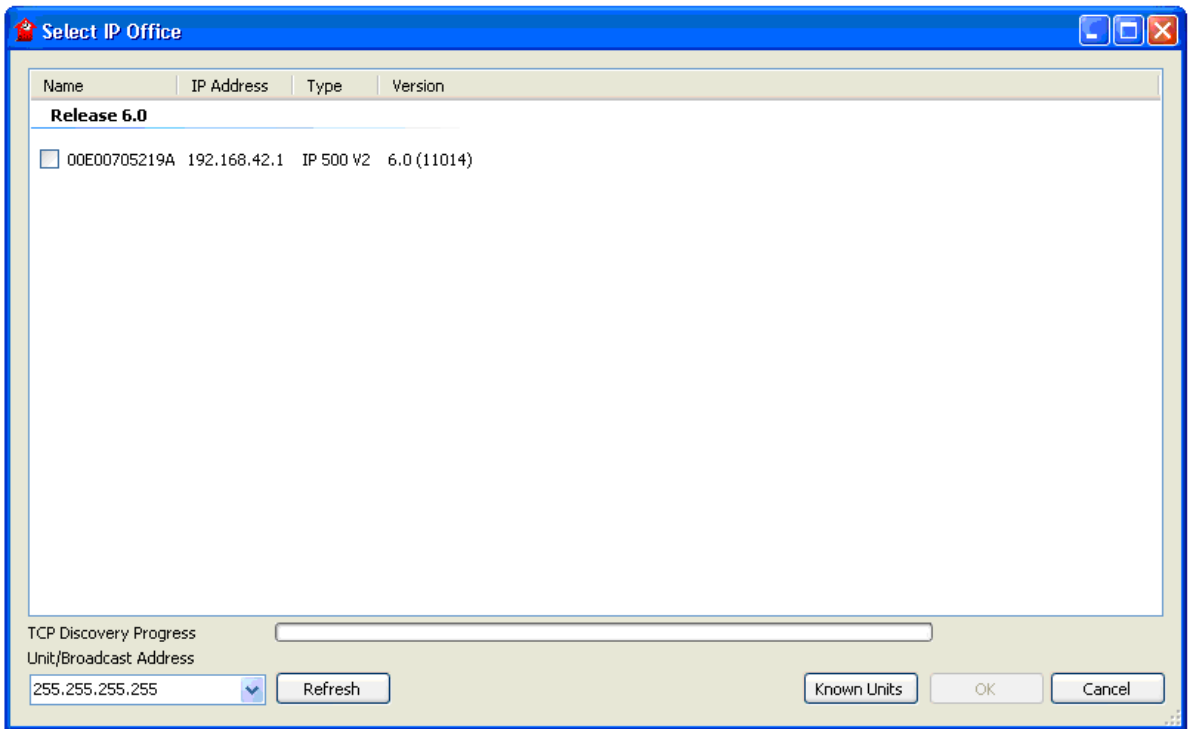
5. Use the Expansion Modules box to select the expansion module if there is one attached to the system to which the configuration will be loaded.
6. When the hardware selection is as required, click OK.
7. The configuration is now created and loaded into Manager for editing.
8. When completed:
   - To save the file locally, select File | Save Configuration as.
   - To send the configuration to a system, select File | Offline | Send Config....

4.1.2 Open Configuration

Manager can load a previously saved configuration file on the PC.

The initial address ranges in which Manager searches for IP Office systems are set through the Manager preferences (File | Preferences | Discovery 81). The security mechanism used for configuration transfer between Manager and an IP Office are set through the Secure Communications attribute of Manager preferences (File | Preferences | Security 83).

1. Click in the main toolbar or select File | Open Configuration from the menu bar.
2. The Select IP Office window appears, listing those IP Office systems that responded. The list can be sorted by clicking on the Name column header.



- If the system required is not found, the address used for the search can be changed. Enter or select the required address in the Unit / Broadcast Address field and then click Refresh to perform a new search.
- Known Units is not available unless configured
- If Manager has been configured to Use DNS, the Unit / Broadcast Address field is replaced by a Enter Unit DNS Name or IP Address field . See File | Preferences | Discovery 81 for more details.

3. When the required system is displayed, check the box next to that system and click OK.
4. The name and password request is displayed. Enter the required details and click OK

Note: If the configuration is not loaded a possible cause pop-up is displayed:

- Access Denied
  This is displayed as the cause if the service user name/password were incorrect, or the service user has insufficient rights to read the configuration. The Retry option can be used to log in again but multiple rejections in a 10 minute period may trigger events, such as locking the user account, set by the Password Reject Limit and Password Reject Action options in the IP Offices security settings.
- Failed to communicate with IP Office
  This is displayed as the cause if the network link fails, or the secure communication mode is incorrect (for example Manager is set to unsecured, but the Essential Edition - PARTNER® Version is set to secure only).
- Account Locked
  The account of the Service User name and password being used is locked. This can be caused by a number of actions, for example too many incorrect password attempts, passing a fixed expiry date, etc. The account lock may be temporary (10 minutes) or permanent until manually unlocked. An account can be enabled again through the IP Office's security settings.

Following a successful log in, additional messages may also appear before the configuration is loaded, such as:

- Your service user account will expire in X days
  This message indicates that an Account Expiry date has been set on the Essential Edition - PARTNER® Version service user account and that date is approaching. Someone with access to the IP Office's security settings will be required unlock the account and set a new expiry date.

- Your password will expire in X days. Do you wish to change it now?
  This message indicates that password ageing has been configured in the IP Office's security settings. If your password expires, someone with access to the IP Office's security settings will be required to unlock the account.
- Change password
  Through the IP Office's security settings, a service user account can be required to change their password when logging in. The dialog provides fields for entering the old password and new password.
- Contact Information Check - This configuration is under special control
  This message will appear if a Manager user with administrator rights has entered their contact information into the configuration. For example to indicate that they do not want the configuration altered while a possible problem is being diagnosed. The options available are:
  - Cancel
    Select this option to close the configuration without making any changes.
  - Set configuration alteration flag
    Select this option if the configuration is being opened because of some urgent maintenance action. When the configuration is next opened, the fact that it has been altered will be indicated.
  - Delete Contact Information
    Select this option to take the Essential Edition - PARTNER® Version system out of special control.
  - Leave contact information and flags unchanged *(Administrators only)*
    This option is only available to service users logging in with administrator rights.

4.1.3 Read Configuration

This option enables you to open a configuration file for examination. Normally, this option would only be used by service personnel investigating a suspect file or wanting to copy part of it.

Chapter 5.
Appendix: SMDR

5. Appendix: SMDR

The Essential Edition - PARTNER® Version control unit is able to send SMDR (Station Message Detail Reporting) records to a specified IP address and port.

Typically an SMDR record is output for each call between two parties (internal and or external) that is handled by the Essential Edition - PARTNER® Version system. In some scenarios, for example transfers where a call involves multiple parties, then multiple SMDR records may be output for each part of the call. See SMDR Examples 109.

Each SMDR record contains call information in a comma-separated format (CSV) format, that is variable-width fields with each field separated by commas. See SMDR Fields 106.

Unless otherwise stated, the SMDR referred to in this documentation is the SMDR output direct from the IP Office rather than that output via the IP Office Delta Server application.

- SMDR Buffer Persistence
  For IP Office Release 6, the operation of SMDR on IP Office 500v2 control units has been enhanced to store any buffered SMDR records during any controlled IP Office power downs or reboots.

Enabling IP Office SMDR 46

1. Use the Admin Tasks Auxiliary Equipment Dialog
2. Select SMDR
3. Check the *SMDR output* box.
4. Enter the required IP Address and TCP Port.

SMDR Records

An SMDR record is generated for each call between two devices on the IP Office system. Devices include extensions, trunk lines (or channels on a trunk), voicemail channels, conference channels and IP Office tones.

Calls that are not presented to another device do not generate an SMDR record. For example internal users dialing short code that simply changes a configuration setting.

The SMDR record is generated when the call ends, therefore the order of the SMDR records output does not match the call start times.

Each record contains a call ID which is increased by 1 for each subsequent call.

When a call moves from one device to another, an SMDR record is output for the first part of the call and an additional SMDR record will be generated for the subsequent part of the call.

Each of these records will have the same Call ID.

Each record for a call indicates in the Continuation field if there will be further records for the same call.

Call Times

Each SMDR record can include values for ringing time, connected time, held time and parked time. The total duration of an SMDR record is the sum of those values.

The time when a call is not in any one of the states above, for example when one party to the call has disconnected, is not measured and included in SMDR records.

Where announcements are being used, the connected time for a call begins either when the call is answered or the first announcement begins.

All times are rounded up to the nearest second.

Each SMDR record has a Call Start time taken from the system clock time. For calls being transferred or subject to call splitting, each of the multiple SMDR records will have the same Call Start time as the original call.

5.1 SMDR Fields

The SMDR output contains the following fields. Note that time values are rounded up to the nearest second.

1. Call Start
   Call start time in the format YYYY/MM/DD HH:MM:SS. For all transferred call segment this is the time the call was initiated, so each segment of the call has the same call start time.

2. Connected Time
   Duration of the connected part of the call in HH:MM:SS format. This does not include ringing, held and parked time. A lost or failed call will have a duration of 00:00:00. The total duration of a record is calculated as *Connected Time + Ring Time + Hold Time + Park Time.*

3.Ring Time
Duration of the ring part of the call in seconds.

- For inbound calls this represents the interval between the call arriving at the switch and it being answered, not the time it rang at an individual extension.
- For outbound calls, this indicates the interval between the call being initiated and being answered at the remote end if supported by the trunk type. Analog trunks are not able to detect remote answer and therefore cannot provide a ring duration for outbound calls.

4.Caller
The callers' number. If the call was originated at an extension, this will be that extension number. If the call originated externally, this will be the CLI of the caller if available, otherwise blank.

5.Direction
Direction of the call – *I* for Inbound, *O* for outbound. Internal calls are represented as *O* for outbound. This field can be used in conjunction with Is_Internal below to determine if the call is internal, external outbound or external inbound.

6.Called Number
This is the number called by the IP Office. For a call that is transferred this field shows the original called number, not the number of the party who transferred the call.

- Internal calls: The extension, group or short code called.
- Inbound calls: The DDI dialed by the caller if available.
- Outbound calls: The dialed digits.
- Voice Mail: Calls to a user's own voicemail mailbox.

7.Dialled Number
For internal calls and outbound calls, this is identical to the Called Number above. For inbound calls, this is the DDI of the incoming caller.

8.Account
The last account code attached to the call. Note: IP Office account codes may contain alphanumeric characters.

9.Is Internal
0 or *1*, denoting whether both parties on the call are internal or external (*1* being an internal call). Calls to SCN destinations are indicated as internal.

Direction	Is Internal	Call Type
I	0	Incoming external call.
O	1	Internal call.
O	0	Outgoing external call.

10.Call ID
This is a number starting from 1,000,000 and incremented by 1 for each unique call. If the call has generates several SMDR records, each record will have the same Call ID. Note that the Call ID used is restarted from 1,000,000 is the IP Office is restarted.

11.Continuation
1 if there is a further record for this call id, *0* otherwise.

12.Party1Device
The device 1 number. This is usually the call initiator though in some scenarios such as conferences this may vary. If an extension/hunt group is involved in the call its details will have priority over a trunk, this includes remote SCN destinations.

Type	Party Device	Party Name
Internal Number	E<*extension number*>	<name>
Voicemail	V<*9500 + channel number*>	VM Channel <*channel number*>
Conference	V<*1*><*conference number*>+<*channel number*>	CO Channel <*conference number.channel number*>
Line	T<*9000+line number*>	Line <*line number*>.<*channel if applicable*>
Other	V<*8000+device number*>	U<*device class*> <*device number*>.<*device channel*>
Unknown/Tone	V8000	U1 0.0

13.Party1Name
The name of the device – for an extension or agent, this is the user name.

14.Party2Device
The other party for the SMDR record of this call segment. See Party1Device above.

15.Party2Name
The other party for the SMDR record of this call segment. See Party1Name above.

16.Hold Time
The amount of time in seconds the call has been held during this call segment.

17.Park Time
The amount of time in seconds the call has been parked during this call segment.

18.AuthValid
This field is used for authorization codes. This field shows *1* for valid authorization or *0* for invalid authorization.

19.AuthCode
This field shows either the authorization code used or *n/a* if no authorization code was used.

20.User Charged
This and the following fields are used for ISDN Advice of Charge (AoC). The user to which the call charge has been assigned. This is not necessarily the user involved in the call.

21.Call Charge
The total call charge calculated using the line cost per unit and user markup.

22.Currency
The currency. This is a system wide setting set in the IP Office configuration.

23.Amount at Last User Change
The current AoC amount at user change.

24.Call Units
The total call units.

25.Units at Last User Change
The current AoC units at user change.

26.Cost per Unit
This value is set in the IP Office configuration against each line on which Advice of Charge signalling is set. The values are 1/10,000th of a currency unit. For example if the call cost per unit is £1.07, a value of 10700 should be set on the line.

27.Mark Up
Indicates the mark up value set in the IP Office configuration for the user to which the call is being charged. The field is in units of 1/100th, for example an entry of 100 is a markup factor of 1.

The following additional fields are provided by IP Office SMDR. They are not provided by Delta Server SMDR.

28.External Targeting Cause
This field indicates who or what caused the external call and a reason code. For example *U FU* indicates that the external call was caused by the Forward Unconditional setting of a User.

Targeted by		Reason Code	
HG	Hunt Group.	fb	Forward on Busy.
U	User.	fu	Forward unconditional.
LINE	Line.	fnr	Forward on No Response.
AA	Auto Attendant.	fdnd	Forward on DND.
ICR	Incoming Call Route.	CfP	Conference proposal (consultation) call.
RAS	Remote Access Service.	Cfd	Conferenced.
?	Other.	MT	Mobile Twinning.
		TW	Teleworker (Phone Manager Telecommuter mode).
		XfP	Transfer proposal (consultation) call.
		Xfd	Transferred call.

29.External Targeter Id
The associated name of the targeter indicated in the External Targeting Cause field. For hunt groups and users this will be their name in the IP Office configuration. For an Incoming Call Route this will be the Tag if set, otherwise *ICR*.

30.External Targeted Number
This field is used for forwarded, Incoming Call Route targeted and mobile twin calls to an external line. It shows the external number called by the IP Office as a result of the off switch targeting where as other called fields give the original number dialled.

5.2 SMDR Examples

The following are examples of IP Office SMDR records for common call scenarios.

Basic Examples

Lost incoming Call

In this record, the Call duration is zero and the Continuation field is 0, indicating that the call was never connected. The Ring Time shows that it rang for 9 seconds before ending.

```
2008/06/28 09:28:41,00:00:00,9,8004206,I,4324,4324,,0,1000014155,0,E4324,Joe Bloggs,T9161,LINE 5.1,0,0
```

Call Answered by Voicemail

In this example, 215 has made a call to 211. However the Party2Device and Party2Name show that the call was answered by voicemail.

```
2008/10/20 06:43:58,00:00:10,21,215,O,211,211,,I,28,0,E215,Extn215,V9051,VM Channel 1,0,0
```

Call Transferred to Voicemail

In this example, the Continuation field in the first record tells us that it wasn't the end of the call. The matching Call ID identifies the second record as part of the same call. The change in Party 1 details between the two records show that the call was transferred to voicemail.

```
2008/06/28 09:30:57,00:00:13,7,01707392200,I,299999,299999,,0,1000014160,1,E4750,John Smith,T9002,LINE 1.2,11,0
2008/06/28 09:30:57,00:00:21,0,01707392200,I,299999,299999,,0,1000014160,0,V9502,VM Channel 2,T9002,LINE 1.2,0,0
```

External Call

The Is Internal field being 0 shows this to be a external call. The Direction field as I shows that it was an incoming call. The Ring Time was 7 seconds and the total Connected Time was 5 seconds.

```
2008/08/01 15:14:19,00:00:05,7,01707299900,I,403,390664,,0,1000013,0,E403,Extn403,T9001,Line 1.2,0,0,,,,,,,,,,,,
```

Internal call

The Is Internal field being 1 shows this to be a internal call. The Ring Time was 4 seconds and the total Connected Time was 44 seconds.

```
2008/06/26 10:27:44,00:00:44,4,4688,O,4207,4207,,1,1000013898,0,E4688,Joe Bloggs,E4207,John Smith,0,0
```

Outgoing Call

The combination of the Direction field being outbound and the Is Internal field be 0 show that this was a outgoing external call. The line (and in this case channel) used are indicated by the Party2 Name and being a digital channel the Ring Time before the call was answered is also shown.

```
2008/06/28 08:55:02,00:08:51,9,4797,O,08000123456,08000123456,,0,1000014129,0,E4797,Joe Bloggs,T9001,LINE 1.1,0,0
```

Voicemail Call

The two records below show calls to voicemail. The first shows the Dialed Number as*17, the default short code for voicemail access. The second shows the Dialed Number as Voicemail, indicating some other method such as the Message key on a phone was used to initiate the call.

```
2008/06/28 09:06:03,00:00:19,0,4966,O,*17,*17[1],,1,1000014131,0,E4966,John Smith,V9501,VM Channel 1,0,0
2008/06/28 09:06:03,00:00:19,0,4966,O,VoiceMail,VoiceMail,,1,1000014134,0,E4966,John Smith,V9501,VM Channel 1,0,0
```

Parked Call

In this example the first record has a Park Time showing that the call was parked. The Continuation field indicates that the call did not end this way and there are further records. The second record has the same Call ID and shows a change in the Party2Name [4], indicating that party unparked the call. Note also that both records share the same call start time.

```
2008/10/20 07:18:31,0:00:12,3,215,O,210,210,,1,38,1,E215,Extn215,E210,Extn210,0,7
2008/10/20 07:18:31,0:00:10,0,215,O,210,210,,1,38,0,E215,Extn215,E211,Extn211,0,0
```

Incoming call with Account Code

In this example, at some stage as the call was made or during the call, an Account Code has been entered. In this specific case it is a text account code which can be selected and entered by the user using IP Office Phone Manager.

```
2008/06/28 11:29:12,00:00:02,2,5002,I,1924,1924,Support,0,1000014169,0,E1924,Extn1924,T9620,LINE 8.20,0,0
```

Conference Using Conference Add Short Code

In this example 2101 has made a call and put it on hold (record 2), then made another call and put it on hold (record 1) and then dialled the default short code *47 to conference all their held calls (record 3). The records for the first two calls have the Continuation field set as 1 indicating that the calls continued in further records.

Record 3 shows 2101 making a new call in which they dial *47, which places them and their held calls into a conference. This is shown by the Party Device and Party Name details as being a conference (100) and the conference channel used for each.

For both the Continuation fields show that the calls do not end but rather have subsequent records.

```
2008/07/09 17:55,00:00:03,3,2101,O,8262623#,8262623#,,0,1000024,1,E2101,Extn2101,T9002,Line 2.1,8,0
2008/07/09 17:54,00:00:29,7,2101,O,2121,2121,,1,1000023,1,E2101,Extn2101,E2121,Extn2121,23,0
2008/07/09 17:55,00:00:46,0,2101,O,*47,*47,,1,1000026,0,E2101,Extn2101,V11001,CO Channel 100.1,0,0
2008/07/09 17:54,00:00:49,0,,O,71234567890,71234567890,,1,1000023,0,E2121,Extn2121,V11003,CO Channel 100.3,0,0
2008/07/09 17:55,00:00:49,0,,O,8262623#,8262623#,,0,1000024,0,V11002,CO Channel 100.2,T9002,Line 2.1,0,0
```

Conference Using Conference Button

In this example, an extension user answers a call and then brings in another user by using the Conference button on their phone. Again we see records for the initial call, the conference proposal call and then for the 3 parties in the conference that is created.

```
2008/07/09 15:05:41,00:00:04,3,203,O,201,201,,1,1000009,1,E203,Extn203,E201,Extn201,0,0
2008/07/09 15:05:26,00:00:09,3,207,O,203,203,,1,1000008,1,E207,Extn207,E203,Extn203,10,0
2008/07/09 15:05:41,00:00:08,0,,O,,,,1,1000009,0,E201,Extn201,V11001,CO Channel 100.1,0,0
2008/07/09 15:05:50,00:00:10,0,203,O,201,201,,1,1000010,0,E203,Extn203,V11002,CO Channel 100.2,0,0
2008/07/09 15:05:26,00:00:10,0,207,O,203,203,,1,1000008,0,E207,Extn207,V11003,CO Channel 100.3,0,0
```

Adding a Party to a Conference

This example is a variant on that above. Having started a conference, extension 203 adds another party.

```
2008/07/09 15:08:31,00:00:03,3,203,O,201,201,,1,1000014,1,E203,Extn203,E201,Extn201,0,0
2008/07/09 15:08:02,00:00:22,6,207,O,203,203,,1,1000013,1,E207,Extn207,E203,Extn203,9,0
2008/07/09 15:08:45,00:00:02,4,203,O,403,403,,0,1000016,1,E203,Extn203,E403,Libby Franks,0,0
2008/07/09 15:08:02,00:00:24,0,207,O,203,203,,1,1000013,0,E207,Extn207,V11003,CO Channel 100.3,0,0
2008/07/09 15:08:39,00:00:17,0,203,O,201,201,,1,1000015,0,E203,Extn203,V11002,CO Channel 100.2,8,0
2008/07/09 15:08:31,00:00:26,0,,O,,,,1,1000014,0,E201,Extn201,V11001,CO Channel 100.1,0,0
2008/07/09 15:08:45,00:00:12,0,,O,403,403,,0,1000016,0,E403,Libby Franks,V11004,CO Channel 100.4,0,0
```

Transfer

In this example 2126 has called 2102. The record (1) for this has the Continuation set a 1 indicating that it has further records. In the following record (3) with the same Call ID it can be seen that the Party 2 Device and Party 2 Name fields have changed, indicating that the call is now connected to a different device, in this example 2121. We can infer the blind transfer from the intermediate record (2) which shows a call of zero Connected Time between the original call destination 2102 and the final destination 2121.

```
2008/07/09 17:51,00:00:38,18,2126,O,2102,2102,,1,1000019,1,E2126,Extn2126,E2102,Extn2102,19,0
2008/07/09 17:52,00:00:00,7,2102,O,2121,2121,,1,1000020,0,E2102,Extn2102,E2121,Extn2121,0,0
2008/07/09 17:51,00:00:39,16,2126,O,2102,2102,,1,1000019,0,E2126,Extn2126,E2121,Extn2121,0,0
```

In this second example extension 402 answers an external call and then transfers it to extension 403. Again the two legs of the external call have the same time/date stamp and same call ID.

```
2008/08/01 15:23:37,00:00:04,7,01707299900,I,4001,390664,,0,1000019,1,E402,Extn402,T9001,Line 1.1,6,0,,,,,,,,,,,,
2008/08/01 15:23:46,00:00:00,3,402,O,403,403,,1,1000020,0,E402,Extn402,E403,Extn403,0,0,,,,,,,,,,,,
2008/08/01 15:23:37,00:00:04,4,01707299900,I,4001,390664,,0,1000019,0,E403,Extn403,T9001,Line 1.1,0,0,,,,,,,,,,,,
```

Busy/Number Unavailable Tone

In this example 2122 calls 2123 who is set to DND without voicemail. This results in 2122 receiving busy tone.

The records shows a call with a Connected Time of 0. The Call Number field shows 2123 as the call target but the Party 2 Device and Party 2 Name fields show that the connection is to a virtual device.

```
2008/07/09 17:59,00:00:00,0,2122,O,2123,2123,,1,1000033,0,E2122,Extn2122,V8000,U1 0.0,0,0
```

Call Pickup

The first record shows a call from 2122 to 2124 with a Connected Time of zero but a Ring Time of 8. The Continuation field indicates that the call has further records.

The second record has the same Call ID but the Party 2 Device and Party 2 Name details show that the call has been answered by 2121.

```
2008/07/09 18:00,00:00:00,8,2122,O,2124,2124,,1,1000038,1,E2122,Extn2122,E2124,Extn2124,0,0
2008/07/09 18:00,00:00:38,1,2122,O,2124,2124,,1,1000038,0,E2122,Extn2122,E2121,Extn2121,0,0
```

Internal Twinning

The records for scenarios such as internal call forwarding or follow me indicate the rerouting in a single record by having Caller and Called Number details that differ from the final Party 1 and Party 2 details. Internal twinning differs is showing a call answered at the twin exactly the same as having been answered at the primary.

203 is internally twinned to 201. Call from 207 to 203 but answer at 201.

```
2008/07/09  16:25:26,00:00:03,7,207,O,203,203,,1,1000037,0,E207,Extn207,E203,Extn203,0,0
```

Park and Unpark

Parking and unparking of a call at the same extension is simply shown by the Park Time field of the eventual SMDR record. Similarly calls held and unheld at the same extension are shown by the Held Time field of the eventual SMDR record for the call. The records below however show a call parked at one extension and then unparked at another.

The records show a call from 207 to 203. 203 then parks the call shown by the Park Time. The call is unparked by 201, hence the first record is indicated as continued in its Continuation field. The matching Call ID indicates the subsequent record for the call.

```
2008/07/09 16:39:11,00:00:00,2,207,O,203,203,,1,1000052,1,E207,Extn207,E203,Extn203,0,4
2008/07/09 16:39:11,00:00:02,0,207,O,203,203,,1,1000052,0,E207,Extn207,E201,Extn201,0,0
```

Distributed Hunt Group Call

An incoming call to site A is targeted to a distributed hunt group member on site B. They transfer the call back to a hunt group member on site A.

```
2008/08/01  15:32:52,00:00:10,19,01707299900,I,4002,390664,,0,1000024,1,E209,Luther-209,T9001,Line  1.2,0,0,,,,,,,,,,,,
2008/08/01  15:33:19,00:00:00,2,209,I,403,403,,0,1000025,0,E209,Luther-209,E403,Extn403,0,0,,,,,,,,,,,,
2008/08/01  15:32:52,00:00:03,3,01707299900,I,4002,390664,,0,1000024,0,E403,Extn403,T9001,Line  1.2,0,0,,,,,,,,,,,,
```

Voicemail Supervised Transfer

A call is routed to a voicemail module that performs a supervised transfer.

```
2008/08/01  16:36:04,00:00:09,0,01707299900,I,xfer,390664,,0,1000061,1,T9001,Line 1.1,V9508,VM Channel  8,0,0,,,,,,,,,,,,
2008/08/01  16:36:07,00:00:03,4,,I,402,402,,0,1000062,0,E402,Extn402,V8000,U12  0.8,0,0,,,,,,,,,,,,
2008/08/01  16:36:04,00:00:09,0,01707299900,I,402,390664,,0,1000061,0,E402,Extn402,T9001,Line  1.1,0,0,,,,,,,,,,,,
```

Outgoing External Call

The External Targeting Cause indicates that the external call was caused by a user. The lack of specific reason implies that it was most likely dialed. The External Targeter ID is the user name in this example

```
… 16:23:06,00:00:04,5,203,O,9416,9416,,0,1000035,0,E203,Extn203,T9005,Line  5.1,0,0,,,Extn203,,,,,,,,U,Extn203,,
```

Rerouted External Call

In this example an incoming external call has been rerouted back off switch, shown by the Party 1 fields and the Party 2 fields being external line details. The External Targeter Cause shows that rerouting of the incoming call was done by an incoming call route (ICR). The External Targeter ID in this case is the Tag set on the incoming call route. The External Targeted Number is the actual external number call.

```
… 08:14:27,00:00:03,5,392200,I,9416,200,,0,1000073,0,T9005,Line  5.1,T9005,Line  5.2,0,0,,,,0000.00,,0000.00,0,0,618,0.01,ICR,Main ICR
```

External Forward Unconditional

In this example, user 203 has a forward unconditional number set for calls. This is indicated by the External Targeting Cause showing user and forward unconditional. The External Targeter ID shows the source of the call being forwarded, in this example user 207. The External Targeted Number shows the actual external number called by the IP Office.

```
… 16:22:41,00:00:02,5,207,O,203,203,,0,1000034,0,E207,Extn207,T9005,Line  5.1,0,0,,,Extn203,0000.00,,0000.00,0,0,618,1.00,U fu,Extn20
```

Transferred Manually

In this example the internal user transfers a call to an external number. The External Targeting Cause in the first record indicates that this external call is the result of a user (U) transfer proposal (XfP) call. The Continuation field indicates that another record with the same Call ID will be output.

The additional records are output after the transferred call is completed. The first relates to the initial call prior. The second is the transferred call with the External Targeting Cause now indicating user (U) transferred (Xfd).

```
… 16:33:19,00:00:05,3,203,O,9416,9416,,0,1000044,1,E203,Extn203,T9005,Line 5.1,0,0,,,,,,,,,,U XfP,Extn207,,
… 16:33:09,00:00:02,2,207,O,203,203,,1,1000043,0,E207,Extn207,E203,Extn203,11,0,,,,,,,,,,,,,
… 16:33:19,00:00:04,0,207,O,9416,9416,,0,1000044,0,E207,Extn207,T9005,Line 5.1,0,0,,,Extn207,,,,,,,,U Xfd,Extn203,,
```

Mobile Twinned Call Answered Internally

For this example user 203 has mobile twining enabled to the external number 9416 as twin. Their mobile dial delay is set to 2 seconds. The call is answered at the user's internal extension.

In this scenario the record for the external call part of twinning is output immediately the call is answered internally. The Call Start for this record differs dues to the user's Mobile Dial Delay setting. The External Targeting Cause indicates the external call was the result of user (U) mobile twinning (MT) settings. If the call had been answered before the mobile dial delay expired, no external call and therefore no record would be produced. When the call is completed the second record is output.

```
… 16:17:59,00:00:00,7,,O,9416,9416,,0,1000028,0,E203,Extn203,T9005,Line 5.1,0,0,,,,,,,,,,U MT,Extn203,9416,
… 16:17:58,00:00:07,9,207,O,203,203,,1,1000027,0,E207,Extn207,E203,Extn203,0,0,,,,,,,,,,,,,
```

Mobile Twinned Call Answered at the Mobile Twin

This is the same scenario as the example above except that the call is answered at the external mobile twinning destination. Unlike the previous example the external call record has a non-zero Call Time showing that the call was also answered externally.

```
… 16:17:04,00:00:06,9,,O,9416,9416,,0,1000026,0,E203,Extn203,T9005,Line 5.1,0,0,,,,,,,,,,U MT,Extn203,9416
… 16:17:02,00:00:06,11,207,O,203,203,,1,1000025,0,E207,Extn207,E203,Extn203,0,0,,,,,,,,,,,,
```

Mobile Twinned Call Picked Up Using the Twinning Button

This is the same scenario as the example above, however after answering the call on the external twinned device, the user has picked it up internally by using a twinning button. The first two records are for the answered external call and are output when that call is picked up by the internal extension. The third record is output when the call is ended internally.

```
… 16:19:18,00:00:05,11,207,O,203,203,,1,1000029,1,E207,Extn207,E203,Extn203,0,0,,,,,,,,,,,,
… 16:19:20,00:00:05,9,,O,9416,9416,,0,1000030,0,E203,Extn203,T9005,Line 5.1,0,0,,,,,,,,,,U MT,Extn203,9416
… 16:19:18,00:00:05,0,207,O,203,203,,1,1000029,0,E207,Extn207,E203,Extn203,0,0,,,,,,,,,,,,
```

External Conference Party

This is similar to internal conferencing (see examples above) but the conference setup and progress records include External Targeting Cause codes for user (U) conference proposal (CfP) and user (U) conferenced (Cfd).

```
… 16:48:58,00:00:02,2,203,O,9416,9416,,0,1000066,1,E203,Extn203,T9005,Line 5.1,0,0,,,,,,,,,,U CfP,Extn203,,
… 16:48:37,00:00:04,3,203,O,207,207,,1,1000064,1,E203,Extn203,E207,Extn207,7,0,,,,,,,,,,,,
… 16:49:04,00:00:08,0,203,O,9416,9416,,1,1000067,0,E203,Extn203,V11002,CO Channel 100.2,0,0,,,,,,,,,,,,
… 16:48:37,00:00:13,0,,O,,,,1,1000064,0,E207,Extn207,V11003,CO Channel 100.3,0,0,,,,,,,,,,,,
… 16:48:58,00:00:13,0,,O,9416,9416,,0,1000066,0,V11001,CO Channel 100.1,T9005,Line 5.1,0,0,,,Extn203,,,,,,,,U Cfd,Extn203,
```

Call Routed by Incoming Call Route

Call from external number 403 rerouted by incoming call route (ICR) for incoming line group 701 back out to 404.

```
2008/08/01 11:45:36,00:00:01,2,403,I,9404,,,0,1000007,0,T9001,Line 1.0,T9010,Line 10.0,0,0,n/a,0,,,,,,,,ICR,ICR701,404
```

Two Outgoing External Calls Transferred Together

This scenario shows an outgoing call which is then transferred to another outgoing call.

```
2009/02/19 11:13:26,00:00:06,0,203,O,9403,9403,,0,1000012,1,E203,Extn203,T9001,Line 1.0,8,0,n/a,0,,,,,,,,U,Extn203,,
2009/02/19 11:13:36,00:00:02,0,203,O,8404,8404,,0,1000013,0,E203,Extn203,T9002,Line 2.0,0,0,n/a,0,,,,,,,,U XfP,Extn203,,
2009/02/19 11:13:26,00:00:11,0,8404,I,404,,,0,1000012,0,T9002,Line 2.0,T9001,Line 1.0,0,0,n/a,0,,,,,,,,LINE Xfd,0.1038.0 13 Analog
```

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